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ABSTRACT

The education system of Finland is appraised by the Educational Committee of the Organisation for Economic Cooperation and Development (OECD). The problems of each educational sector and the relationships between sectors are examined and the contribution of the education system to the economic, cultural, and social life of the nation is assessed. There are three major parts to the report. Part 1 contains the "Examiners' Report" describing the modern Finnish experience, economic development and educational planning, early childhood education, compulsory schooling, upper secondary and vocational education, higher education, and continuing education. In the second part, a Finnish team of 11 persons led by their Minister of Education in a review meeting answer specific questions from the examiners concerning topics discussed in their report. Part 3 summarizes educational policy in Finland for the various educational levels and for educational administration, teacher training, and educational research. (RM)

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Three of the Nordic countries have recently been the subject of the OECD Education Committee's Country Educational Policy Reviews—Norway (1976); Denmark (1980); Sweden (1981). Now Finland has joined the list.

The four examiners appointed by the Committee have based their report on an extensive visit to the country in April 1981. As desired by the Finnish education authorities, their aim has been to appraise the entire education system, to look at the problems of each sector and the relationships between sectors and to assess the contribution of the system to the economic, cultural and social life of the nation. As an authoritative framework of reference they had to hand a comprehensive report specially prepared by the Finnish Ministry of Education *(Educational Policy in Finland,* OECD, Paris, 1981).

The examiners have chosen to organise their perceptions and impressions of the education system in the light of four features of modern Finland. First, it is a small country, maintaining an independent position between East and West and enjoying a high standard of living for its people despite a harsh climate, limited natural resources, changing technology and fluctuating markets. Second, Finland is striving to arrest metropolitan concentration, which risks a depopulated countryside, by pursuing a social and industrial policy of decentralisation. Third, although a strong attempt has been made, as in other OECD countries, to widen access to education at all levels, it has proved difficult in practice to loosen the link between socio-economic background and educational achievement. Fourth, there has been a recent drive to relate education more closely to employment opportunities.

At the customary review meeting held at OECD headquarters in November 1981, the examiners asked the Finnish Delegation thirty-seven specific questions, which gave rise to a frank and lively debate in the Education Committee. The present volume contains the Examiners' Report, a full account of the review meeting and a summary of the Background Report prepared by the Finnish authorities.

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Part One

THE EXAMINERS' REPORT

FOREWORD

In presenting our report as OECD Examiners, we would like to acknowledge the immense care taken by our Finnish hosts in the preparation of relevant information and the arrangement of visits to a large number of persons and institutions. Our labours would have been certainly more arduous and probably fruitless without the efforts made in Finland and in advance of our arrival. Moreover, we must also offer our gratitude for the unusually high standards of courteous hospitality which were shown to us on our journeys through the country.

I

THE MODERN FINNISH EXPERIENCE

The visitor to Finland at first struggles with the double vision of two contradictory impressions. One is that it is the most northern and eastern extension of the Western countries which make up European industrial society. The other is that it is the northwestern borderland of the USSR and the surviving remnants of European agrarian society. Both impressions are vivid partial truths, but both in the end are false: their combination is the beginning of unitary vision, and essential to an understanding of modern Finnish experience.

We arrived in Helsinki in early April 1981. The city offers all the signs of assured membership of the world of advanced and prosperous industrialism. Helsinki airport is placeless within the network of cosmopolitan travel with only the assiduously polished pine floors to suggest a distinctive Finnish identity. The centre of Helsinki is as opulent and as bustling and as indistinguishable as that of any other European capital, with only the university buildings and the two great cathedrals, the one Lutheran and the other Orthodox, to hint at historical roots in European imperial and Christian tradition behind the fashionable Scandinavian smartness of the hotels, department stores, and apartment blocks.

Then, as we left Helsinki to explore a small country with a population (4¾ millions) smaller than Sweden, Denmark, or Scotland, we became aware of its elongated territory stretching northwards for 1 160 kilometres (721 miles). Spring receded, winter returned, and with it the impression of an agragrian country in which West European civilisation is precariously pushed by a sparse population to its most northern and eastern extremities. Beyond forests, lakes, Rovaniemi, and the Arctic Circle is a frozen wasteland where only the specialised hardiness of an ancient Lapp culture can survive. And the illusion of the world's end was reinforced for us in a school on the Russian border of Karelia near Kuusamo where a map of Finland on the classroom wall, with its colours and contours and roads, suddenly ends with a sharp line on the eastern border, beyond which is nothing.

But it is not so. The 1 269 kilometre land frontier and the narrow gulf to Leningrad and Estonia are economic ties to the USSR. The land connections are strong. The road does not end as the map depicts: it is crossed daily by timber lorries, part of the trade with countries belonging to the Council for Mutual Economic Assistance (CMEA) which is an essential component of the Finnish economy.

On the other hand, Finland's economic ties to the West are inextricably bound up with her remarkable record of economic growth over the past three decades. Though over one-fifth of her exports are to the USSR, nearly three-quarters of her foreign trade is with OECD countries. She derives some stability through bilateral agreements with the CMEA countries, and imports two-thirds of her oil as part of an agreement with Russia, in exchange for engineering products, textiles, and furniture. But this element of valuable stability is limited by the dominance of the wood-processing industry in Finland. The Soviet Union is itself a major producer and exporter of pulp, paper, and sawn timber. Thus Finland must depend on success in the Western markets and adapt to their fluctuating demands. A modern industrialised Finland can only prosper economically in both the Western and Eastern worlds. Finland now is both a neighbour of Russia and an enthusiastic Member country of OECD.

Politics draws sharp lines on school maps, but history and trade and cultural memory refuse to be contained by them. The answer to our first question cannot therefore be given by simply assigning this small sovereign country to Western or Eastern dependency. Finland is the Finnish people but that too is no unequivocal answer because they include the Swedish-speaking minority in the south, the Sami people of the north, and the once nomadic gypsies, as well as the links and memories of Finnish migrants in Australia, Canada, Sweden and the United States. Above all, there is a Finnish national identity of ancient origin sustained by a highly distinctive language. That language survived six centuries of Swedish rule, and the subsequent century and more from 1809 as a Grand Duchy dependent on the Tsars to serve as the continuing vehicle of Finnish patriotism and Finnish adaptation to Western and Eastern influences. An oral tradition for centuries, it was developed strongly in literature in the nineteenth century by such authors as Elias Lönnrot, J.L. Runeberg, Aleksis Kivi and J.V. Snellman. The Kalevala, a Finnish national epic of some twenty-three thousand verses of ancient oral tradition, was written down and published in 1835 and 1949 to form the cornerstone of Finnish literature.

A Finnish language and culture grew steadily from these roots. It was a development always beset by adversity. National independence came late to Finland out of the chaos created by the First World War and the October Revolution of 1917 in Russia, and then only through a bitter interlude of civil war. The period of Swedish domination before the nineteenth century annexation by Russia had left a deep cultural cleavage between an educated, Swedish-speaking upper class, and the uneducated, Finnish-speaking common people of workmen, servants, and peasants. Industrialisation, too, came late and rapidly to disrupt an ancient rural tradition of forestry, fishing, and farming. Both national sovereignty and an industrial culture are within the lifetime of the recent President of Finland, Urho Kaleva Kekkonen, and his contemporaries. Both have been hard won, and both have to be retained in a difficult position of political geography between east and west, and of economic geography in the far north.

Thus the Finnish identity has grown out of deep agrarian roots, matured by the political and cultural nationalism of Helsinki scholars and politicians in the nineteenth century, hardened by war and military defeat in the twentieth century, and made adaptively vigorous by the climate of international economic competition since the Second World War.

To grow up in such a country is to be challenged to absorb and master a culture immensely more cosmopolitan than one's grandfather would have dreamt of. The children in the border school with their skis stacked outside, their stubby faces, blond hair, and blue eyes, and their dubiously Christian names like Pirkko, Arja, Osmo, or Markku, would have been strictly familiar to him. Their brightly-coloured nylon clothes, and their well-formed and well-fed bodies would have delighted him. But if he had returned with us to the hotel in Joensuu to be greeted at the entrance by placards announcing a Samba festival, he would have faced a wholly unfamiliar scene. Threading his way inside through the throng of Finnish adolescents dressed like Venezualians and responding eagerly to the insistent invitations of a visiting dance troupe, cavorting dusky and half naked to South American rhythms, he would doubtless have recoiled in disbelief. For his grandchildren have become citizens of a Finland which assimilates the bizarre elements of the international mass media as well as the more sober skills of industrial survival in international markets. *Don't Let it Mess your Mind* was the blatantly self-contradictory current "hit", blaring out of the ubiquitous "hi-fi" of the hotels in which we stayed. Perhaps the link to an older, more sober, society was provided by the fact that while the Samba beat its boisterous abandon into the early hours, the Vice-Chancellor of the University of Joensuu dined us in a quiet room at the other end of the hotel, and led the singing of traditional Karelian ballads; and we ended a civic lunch in Joensuu by singing *Gaudeamus Igitur*.

For us, as OECD examiners of the Finnish system of education, the surface phenomena of contemporary culture were challenges to a more complete understanding. They reminded us not only that education in its formal constitution is no more than a part of cultural transmission, but also that the culture changes rapidly under stimulus from a diversity of origins. If, as we believe, Finnish education is a vital clue to the survival and prosperity of the nation, an appreciation of it would require a wide perspective.

So as we returned to the capital our naively binary conception of a modern industrial and a backward agrarian country was unified not into a picture of simple homogeneity but into a complex impression of integrated metropolis and province. The integration is real and recent. It overlays older conflicts between town and country, bourgeoisie and proletariat, Swedish-speaking elite and Finnish plebian. It entails determined policies of regional development in industry and social services at home, and of sophisticated balancing diplomacies abroad. Both the internal and the external aspects are beset with problems.

Internal integration has been both partially solved and partially exacerbated by the increasing power of the metropolis. The population of Helsinki has been multiplied by five over the past seventy years, continuously spilling out into new commuter suburbs in the province of Uusimaa. More than half of the national total live in the four southern provinces, leaving not much more than two million to cover the other four-fifths of the territory to the north and east. And migration southwards continues in what was represented to us as "the iron law of Finnish demography". In one sense, therefore, there is a steady flight from a dying agrarian to a thriving urban economy. An increasing proportion of the territory thus becomes a "marginal" Finland which struggles against debilitating depopulation. Yet the solution of regional development is pursued with vigour, creating provincial jobs for university graduates, investing in industrial centres in Jyväskyla or Oulu, and guaranteeing the same level of social services in the remotest hamlets as are enjoyed in Helsinki. The state through these policies has driven famine and the eating of birch-bark bread into folklore. But the modern parents in the northern villages have to face the fact that their children will probably have to leave them in order to find work in the cities. The modern experience is of a sharp disruption of relations between the generations, demographically, educationally, and occupationally. Parents face this disruption after centuries of rural continuity. Neither the state-aided holidays by air travel which their own parents never knew, nor the summer arrival of the well-to-do tourists and cottage vacationers from Helsinki or Espoo can be any real consolation for the loss of the rural community into which they had been born and schooled, and from which they see their children depart forever. A measure of the challenge to adaptiveness involved is that in 1950 the proportion of the labour force engaged in farming and forestry was 45 per cent, whereas by 1980 it had been reduced to 15 per cent.

Education itself is caught between the pressures of continuity and disruption. For today's grandparents it took the form of new opportunities if only for the very few, out of the traditional Finnish-speaking culture. For parents it has been the beginning of a wider liberation of their country from Swedish cultural and Russian administrative control. For the children it is a necessary selective process for places in the advanced industrial world, and collectively a necessary instrument for successful economic survival. For all three generations the educational road is characteristically and increasingly of urban destination.

Finnish urbanisation is expensive. The annual "winter surcharge" of such a northern country is burdensome, not only to industrial production, but also the construction, heating and maintenance of housing and amenities. To be among the seventeen richest countries under such daunting Arctic or sub-Arctic conditions requires exceptionally vigorous determination, and challenges the education system to renew the will to succeed in every new generation. Accordingly, we have been impressed by the achievements of the universities, for example in Helsinki, in low temperature physics and marine technology. We have admired the imaginative enterprise of the development of the universities at Kuopio, Joensuu, and Oulu. We have appreciated the efforts in Jyväskyla to serve a developing modern industry with a wide variety of vocational training. And we have been struck by Finnish willingness to support tiny one-teacher schools in far-away rural districts, so as to set children on the educational path from a point within the community of their birth. We shall, of course, return in subsequent chapters to a detailed appraisal of each of the stages of Finnish education, assessing their difficulties and shortcomings, as well as their achievements. For the moment we make only the general point that education in Finland has so far played a vital role in the integration of an advanced nation and in the policy of assuaging the tendency for unity to be maintained at the price of abandoning the provinces and aggrandising the metropolis.

Economic growth has these concomitants all over the world. It concentrates the labour force in a smaller number of larger firms. It shifts labour from the primary and secondary to the tertiary or service sector. It creates prosperous suburban classes of professional, sub-professional, technical, and bureaucratic employees. And as the labour market changes, so do the pressures put on the schools and colleges. Finland is no exception. An economy of farmers, foresters, and small businesses has been transformed until two-thirds of the workforce is employed by 100 firms, making four-fifths of all industrial investment, and sending out nine-tenths of Finnish exports. Half the workers are in service employment. Over two-thirds of the women are in paid employment outside the home. Full employment is no longer the occasional and cyclical outcome of boom conditions in the market. But full employment is not safely guaranteed by government as the relatively simple result of Keynesian aggregate demand management. Above all, from an educational point of view, the need is to create, and endlessly to renew, a labour force of educated, motivated, mobile, trained and retrained people for an economy which must seize every opportunity in a shifting world market. Without this flexible adaptability, the Finnish economy cannot survive.

We see the record of educational expansion in Finland in these terms. Educational development in the 1950s, 60s, and 70s has produced an ever-rising supply of qualified people. Finland has rejoiced in recent decades as a country with one of the highest ratios of university students to population in Europe. Moreover, it has successfully scattered students and graduates out of Helsinki northwards and eastwards into provincial industry. Yet these past successes do not guarantee a secure future. We shall ask whether the continuing plans for lavish educational provision can be matched with appropriate employment possibilities, whether they can in any case be afforded, and whether current administrative arrangements can support them. A successful linking of educational to occupational opportunity must be part of any strategy for maintaining the internal integration of the nation.

Fission rather than fusion has also been threatened since World War II by external realities. Before that a young man, whether a student in Helsinki or a gymnasium alumnus in Joensuu, could feed his ambition and consciousness of nationality on dreams of Greater Finland. The attainment of political and cultural independence in the earlier years of this century gave a new confidence to nationalism expressing itself, for example, in the Academic Karelia Society which clamoured in the 1920s to make Finnish the language of the university, or in the Agrarian Party which in the 1930s demanded a one-language state.

With the travail of the Second World War came the great turning point of Finnish consciousness. Exhaustion and defeat ushered in a new phase of realistic foreign policy anchored in the 1948 treaty of friendship, co-operation and mutual assistance with the USSR, and popularly dubbed the Paasikivi-Kekkonen-line, whether in appreciative tones by the majority in the political centre, or sardonically by critics of the extreme left and right. In consequence, Finland has maintained the intricate balance which enables her to parley and trade with both East and West, and to form some sort of bridge between the two strong enough to carry the Helsinki Conference on Security and Co-operation in 1975. In the process Finland has had to learn sophisticated diplomacy.

In short, Finland seeks active neutrality in a divided world. Her position is intrinsically precarious and challenges her to maintain vigilantly delicate balances. In the broadest sense of education this also remains a formidable task for the schools and colleges. Sympathetic observers are strongly inclined to argue that modern Finland cannot afford political naïveté, and that a realistic political education in and out of school is essential to, even if it cannot guarantee, national survival. President Kekkonen learned political adaptability in the harsh school of industrial transformation, civil war, invasion, military defeat, and economic reparations. Nordic neutrality, international trade, and Russian amity became for him the necessary conditions for a modern Finnish national independence. He led his country accordingly to carefully poised domestic and foreign policies. President Kekkonen, born in 1900, held office from 1956 to January 1982, retiring for reasons of health in the middle of his fifth term.

The Finns remain confident of their international future. On the results of a poll carried out in 1977 it would seem that the vast majority see their country as a safe place in which to live, despite the fact that most of them saw the 1970s as a period of general deterioration of world order. Over three-quarters, and higher proportions of the young than the old, judge Finland to have good chances of remaining independent into the twenty-first century.

What, then, of Finland's educational future? Against the economic, political, and social background we have sketched, our task in the following chapters is to offer a perspective on the main features of Finnish educational arrangements. We shall, throughout our analysis, be aware of five principal features. First, Finland is a small country, working always to maintain both its independence between the larger powers to its east and west, and to construct a high standard of life for its people in the face of rapidly changing technology, fluctuating markets, and the annual winter surcharge. Second, we must bear in mind the thrust of social and industrial policy towards decentralisation or, to put it the other way round, the tendency towards metropolitan concentration at the expense of a deserted and impoverished countryside. Third, we shall pay particular attention to the processes of social selection through education, recognising that this is a problem in all countries, but that it has particular forms in Finland, especially in the connection of secondary to post-secondary education with the continuing link of the older curriculum associated with the gymnasium to enter into the universities. Fourth, we shall be aware of the complicated interpretation of informal and formal influences on learning, knowing how the influence of the family of origin and the range of choices of occupational destination combine to constrain the formal educational process. Fifth and finally, we shall focus on the relation between educational and industrial policy.

Our discussion is arranged in six chapters. We begin in Chapter II with the economics and planning of the education system as a whole. Then in Chapter III we describe and comment on the arrangements for schooling up to the statutory school leaving age. In Chapter IV we will deal with the educational problems and children between 16 and 19 years of age. In Chapter V we will deal with higher education perspectives. In Chapter VI we discuss the case for adopting a policy of continuing education.

The following five chapters will reveal both triumphs and disappointments, emerging successes and unresolved problems. A small country to be national must be internationalist, both politically and technologically. An arctic or sub-arctic climate is a handicap, imposing, as we have put it, a winter surcharge, but it is also a challenge. Decentralisation through regional policies is not identical with democratisation, but the two movements can aid each other. Late industrialisation has the advantage of avoiding obsolete industrial investment, but it exacts high social costs through rapid shifts in population and ways of life. Rapid social change threatens vested interests and makes for less certain identities, but it opens up new opportunities for new men and women. And expanding horizons challenge educational management. Educational expansion in Finland has gone forward at high speed, but its very success has left problems of integration between old and new types of school and college, and of articulation between education and the labour market.

In examining the Finnish education system against this background, we have been steadily, courteously, and patiently helped by our hosts, and by the careful report—to which we refer as *The Helsinki Report*[1]—on the current state and recent history of education in their country.

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1. *Educational Policy and Planning: Educational Policy in Finland*, OECD, Paris, 1981 (a summary of which is presented in Part Three of this volume).

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II

ECONOMIC DEVELOPMENT AND EDUCATIONAL PLANNING

The material well-being of OECD countries has been pursued since the Second World War primarily through national strategies of economic growth; benefits have spread largely through social policies to redistribute wealth. Education has played a part in the allocation as well as distribution of resources, although the nature of the relationship between the two is increasingly debated. In Finland we have an illuminating example of both national and regional development incorporating an educational component aimed at raising GNP and redistributing burdens and benefits.

Economic expansion and social development

Economic expansion has been a decisive feature of Finnish twentieth-century history. In the nineteenth century Finland was an economically backward country by Western European standards, described in 1833 as "terre primitive, dont la nature a fidèlement gardé, parmi les révolutions humaines, son caractère pour ainsi dire antédiluvien..."[1] At the turn of the century most Finns were living the agrarian life of their ancestors, eking a hard living from an infertile soil. Today Finland has become one of the most prosperous of European industrial nations. Since 1900 the average annual rate of growth of GNP has been 3.3 per cent and of industrial production 5.2 per cent[2]. After the Second World War, the rate of growth increased. During the period 1960-1978 it was 4.1 per cent by comparison with the average rate achieved in developed industrial countries of 3.7 per cent[3]. Growth was faster than in the other Nordic countries. Cyclical variations were also more pronounced: the highest rate occurred at the beginning of the 1970s (between 6.6 and 8.3 per cent), the lowest in the mid-1970s (about 0); an upturn started in the late 1970s which is still under way.

Growth has been accompanied by a transformation of the structure of the Finnish economy. As Table 1 reveals, the period of rapid development since 1950 has witnessed a diminishing role for agriculture and forestry, and an increasing role for services and trade. The contribution of industry has not altered very much, but its internal structure has undergone change. Today the forestry-based industry (including pulp and paper manufacture together with metal and engineering produce about one-half of the value-added industrial output; the food industry, textiles and clothing, chemicals, electricity, gas, and water account for one-tenth each. Industry secures about half its requirements from domestic ore mines and scrap iron. There is a surplus of copper, nickel, and zinc, and economically important deposits of chromium, vanadium, and cobalt. Nearly 90 per cent of the raw materials used by the food industry is of domestic origin. The most important domestic raw material is wood.

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[1] Quoted by D.G. Kirby, *Finland in the Twentieth Century*. C. Hurst and Co., London, 1979, p. 20.

[2] Finnish Industry, Bureau for Economic Information.

[3] For detailed statistics on and a comprehensive analysis of the Finnish economy see *OECD Economic Surveys: Finland*, Paris, May 1981.

Table 1. **Structure of the Finnish economy**[1]
In percentage of GNP

	1950	1970	1979
Agriculture	26	6.2	4.5
Forestry		6.5	4.5
Industry		30.3	31.5
Construction	39	8.9	7.1
Services and trade	34	48.2	52.3
		100.0	100.0

[1] Elinkeinoelämän Taustamuistio, 1980.

The Finnish economy is strongly export-oriented. The export share of GDP is 31 per cent, as compared with about 18 per cent in most industrialised countries. This orientation is one explanation of the dynamic expansion of the economy, especially of industry, in recent times. Wood, metal, and engineering are the most important export products. For comparison, 1979-1980 averages for foreign trade were: to European Economic Community countries, 37 per cent, to European Free Trade Area (EFTA) countries, 22 per cent, to CMEA countries, 18 per cent (USSR about 14-15 per cent), and to other countries, 23 per cent. In order to increase the international competitiveness of its exports, Finland has had to encourage the development of new activities so as to strengthen and enlarge its technological base, to encourage innovation, and to enhance operational efficiency. The improvement of education and occupational training has been viewed as a basic precondition for increasing competitiveness. Hence educational expansion, especially in the vocational and higher education sectors, has been stressed as one of the necessary preconditions for economic development. The resulting high level of technological independence of Finnish industry makes it possible for Finland to be more or less equal in its technological exchanges with other countries.

Dynamic economic development has also led to modifications in the economic and social structure of the population. The share of workers engaged in agriculture and forestry has fallen from 46 per cent of the total workforce in 1950 to 10 per cent in 1980, while during the same period the share of labour in industry and construction increased from 27 per cent to 38 per cent, and in service and trade from 25 per cent to 52 per cent. The share of entrepreneurs (including farmers) fell from 33 per cent in 1960 to 14 per cent in 1980, workers from 42 per cent to 39 per cent, and employers from 21 per cent to 5 per cent. The increased contribution of the services and trade sector to GNP results mainly from the intensive expansion of education, health, and other social services, which raise their revenues from central and local taxes. Average unemployment was reported to be 5¼ per cent of the total workforce from 1976 to 1980. Unemployment is, as in other countries, inversely proportional to the educational level of attainment.

The social security system has been well developed. An employment pension scheme was introduced in the 1960s, to which employers pay contributions. A health insurance scheme has been established by employers and wage earners to provide against illness and disability. A high rate of approximately one-fifth of

GNP goes to finance social security. There are 620 inhabitants per doctor and only 110 inhabitants per nurse. Life expectancy is about 72 years. Working hours have been decreased in the last thirty years from 2 260 hours per year in the early 1950s, to 1 830 hours per year in 1979, and the decrease continues.

All these indications of a rising standard of living reflect a strongly developing economy. The growth of output in the 1970s has been mainly due to a rise in productivity. Labour productivity in 1979 was 33 per cent higher than in 1970, though, of course, rises in productivity varied greatly from year to year, being faster, on average, in boom years and virtually coming to a halt during periods of recession. The high average growth rate of productivity has been due partly to the improved occupational structure of labour, partly to an increase in gross capital stock but, above all, to technical progress which was higher in the 1970s than it had been in the 1960s (estimated at 1.3 per cent over the 1973-9 period or 44 per cent of actual growth). The volume of capital stocks between 1970 and 1979 grew by 58 per cent[4]. Real wages increased from 1970 to 1979 by 21 per cent, that is one-third slower than the rise in productivity.

Regional development

As we have emphasized in Chapter I, Finland has paid great attention to the equalisation of regional economic and social development. The complicated reasons lie in the history and concerns of a country in which the northern and eastern regions are climatically harsh and sparsely populated. The Finnish government encourages economic investment in underdeveloped regions by differential investment subsidies (low rates of interest on loans, subsidies for launching new business, for training and employing personnel, for transportation, etc.). There is a private company for economic investment in under-developed regions (called KERA) and for a specified period of time after launching new enterprises can claim a tax deduction. Municipalities favour new businesses in underdeveloped areas by providing building sites, energy, services, transportation, buildings, houses for labourers, education and training facilities for workers and recreational facilities.

The Finnish resolve to stimulate underdeveloped municipalities is impressive but the results so far are modest. Differences in levels of development are still fairly high, partly because of the harsh climatic conditions of the northern and eastern provinces. However, given the advent of new technology in many branches of the economy and the possibilities afforded by micro-computers for managing processes within large systems, it should become feasible to locate more small enterprises which do not need to use a large quantity of raw material in less populated areas and to provide the necessary skilled personnel. The partnership between central government and the municipalities should therefore become stronger and planning and co-ordination between them should improve.

As to social development in the regions, the drive to equalise education, health, and other social services seems to have run ahead of economic capacity. Thus, the share of the state subsidy in municipal budgets varies from as low as 10 to as high as 100 per cent. The determination to promote redistribution of national income through an active regional equalisation policy is indicated by the ratio of national and local taxation to GDP. Thus, in 1979, the proportion of taxes as a share of GDP was under 35 per cent, the proportion of compulsory social security contributions was an added 5 per cent and the proportion of local taxes approximately 9 per cent.

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[4] Capital stock estimates in Finland vary greatly and should not be taken too literally

Economic planning

The responsibility for planning is divided among several ministries and government agencies. Long-term forecasts and policy programmes are prepared by the Economic Planning Centre (EPC). The EPC is a governmental institution subordinate to the Prime Minister's Office and serving as the Secretariat of the Economic Council, a consultative body consisting of representatives of government, business, and labour. In 1977 this Centre prepared a long-term forecast on *Economic Prospects till 1990*[5]. Medium-term planning, which is indicative, is undertaken by the Ministry of Finance, and forms part of the budgeting process. Usually the economic survey is an annex to the annual State budget plan, and the survey of economic prospects is an annex to the medium-term planning proposals of the State budget. The Ministry of Labour is responsible for forecasting the demand for labour, and the Ministry of Education for planning the supply of skilled personnel, the level of recurrent educational expenditure and investment in school buildings.

Demographic, economic and social targets are allocated to counties and municipalities and serve as the basis for determining state subsidies and development programmes, especially in the sector of public services. Economic and social forecasting is not undertaken independently by counties and municipalities. Instead, they rely on the statistical analyses and targets supplied to them by central government. There is apparently little or no co-operation and collaboration between counties and municipalities and the state bodies dealing with general economic and social forecasting.

Planning in Finland means mostly forecasting at the level of the State government on the basis of econometric models. Such forecasts serve as the analytica framework for policy planning at the State government level. Long-term forecast (for example, up to 1990) deal with the broad outlines of development: planning the utilisation of national resources, population and manpower, capital stock productivity, production, export, imports and the balance of payments, needs and patterns of expenditure (with emphasis on housing, health, recreation, education etc.), and income distribution, incomes policy and finance. The medium-term forecasts and yearly surveys go into greater detail than long-term forecasts.

The first long-term manpower forecast was prepared in the mid-1960s by the Ministry of Labour and covered the period up to 1980. That it has proved to be largely erroneous is not surprising in view of the difficulties of long-term forecasting, but the underlying problem of linking educational to economic development, which is a problem common to all OECD countries, remains. Few would expect now to find a solution in the technicalities of labour market predictions, but it is reasonable to hope for improvement in forecasting over shorter periods. In Finland, a middle-term forecast for manpower demand was prepared for 1975-1980 by a working group representing various ministries. As the basis for this forecast employers' organisations prepared estimates of the anticipated need for manpower, though these estimates had subsequently to be revised.

A comprehensive survey of the prospects for the demand and supply of labour extending up to 1985 was completed in 1979. It is too soon to draw firm conclusions about the forecasts included in this survey but judging by short-term developments, they appear to be too pessimistic.

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[5] Economic Planning Centre, *Finland 1990: Economic Prospects*, Helsinki, 1977.

Educational planning

The imprecision of attempts in all countries to forecast the future occupational structure of manpower demand poses problems for educational planning. How far should people be educated and trained for specific occupations that will enable them to acquire new skills when changes in the labour market so require? How far should educational planning be influenced by the requirements of economic development and how far should it be influenced by other factors?

Two attempts have been made in Finland to assess global training needs by the appointment of *ad hoc* committees. The report of the first committee was published in 1969 with a time horizon extending to the year 1985. The committee made recommendations concerning the number of training places in various fields, which met with a great deal of criticism. The approach was widely regarded as technocratic, it being felt that education and training needs should not be determined mainly by the needs of the labour market. Since then the policy has been to base educational planning on social demand.

The second report was prepared and completed in 1978, with the time horizon extending up to the year 1990. This report has presented more precise and detailed recommendations concerning the quantitative need for trained manpower in various fields and at various educational levels. It was favourably received, and its findings have formed an important, though not an exclusive, basis for planning quantitative targets in education and training.

Experience shows that it is usually possible to predict correctly the direction of changes but that more or less serious errors are characteristically made in estimating the rate at which changes occur. These problems are intractable ones and the common experience of OECD countries. Although having no new solutions to offer, we would emphasize the need for much greater co-operation between the authorities responsible for educational planning and those in charge of economic and fiscal planning. More co-operation also appears to be needed between the educational planning authorities and trades unions, employers' organisations, and municipalities.

During the past decade in Finland, parallel with the introduction of a major educational reform of primary and secondary education, there has been a great expansion of student enrolments. At the end of the 1970s the whole generation aged 7-15 years was attending the comprehensive school, and about 48 per cent of 16-year-olds was entering upper secondary education. In 1978 the number of new students entering vocational schools was 76 861, an increase of 4 per cent compared with the previous year. Of new students entering vocational education, one-fifth had completed upper secondary school. The rapid growth of higher education started in the 1960s when enrolments nearly doubled from 23 000 to 45 000. The growth rate continued to be high until the mid-1970s. Thereafter enrolments stabilized at about 80 000 students. New entrants to higher education now represent between 16 and 17 per cent of the age group.

Such an expansion of student numbers has been made possible by the opening of a great number of new secondary level educational institutions (especially vocational schools and institutes), and by the expansion of universities. In 1978 there were 541 vocational institutions in Finland, 17 universities, a school of social sciences and local administration, and three institutions of higher education in the Arts. Secondary level education institutions and universities and other places of higher education are at present spread all over the country. The regional extension of education, as we shall see in detail in Chapters IV and V, has become a very important factor in the expansion of education, especially vocational and higher education. The policy is to establish vocational schools and higher education in the underdeveloped regions of the country so as to make possible an increase in enrolment ratios and provide equitable opportunities for young people to obtain vocational and higher education. The extension of a network of vocational institutions, especially those at the higher level, enhances career prospects for young people in under-developed and sparsely populated areas.

Plans are drawn up by the Ministry of Education, the National Board of General Education, the National Board of Vocational Education, and the institutions of higher education. The government medium-term plans in education (enrolments, expenditure, investments, etc.) form the basis for preparing the regional plans of the provincial governments. The education plans of the provincial governments and the municipalities mostly concern implementation of the educational targets set by the central authorities. In short, the provincial governments and municipalities are primarily executives of centrally conceived plans; they play only a modest creative role in the planning process.

Parliament is involved in the decision-making process in education planning. The Parliamentary Cultural Affairs Committee not only prepares relevant legislation but discusses plans for educational reform. The Parliamentary Economic Committee reviews the plans for education every year in preparing and approving the State budget. Through these two parliamentary committees, all the political parties are thus involved in the decision-making process.

The parts played by the National Board of General Education and the National Board of Vocational Education in education planning are very important. The latter collaborates with employers and trades unions, but our impression is that the contribution of employers' organisations and trades unions to educational planning is fairly weak.

The target of educational reform at the secondary level is to direct more young people into vocational education, that is, into the economy and the social services. For 1988 the balance of secondary level graduates is forecast in Table 2. This table indicates that more than half of the matriculated students in 1988 will not be able to enter universities, but will enter vocational institutions—the majority at the post-secondary level, the minority at the school level. From the point of view of the link between schooling and work, it must be noted that such a distribution of matriculated students will prolong the number of school years for a high percentage of students, and will diminish the differences in the length of schooling among different levels of skilled personnel. Thus it appears from Table 3 that:

a) the quickest passage to university will remain through the upper secondary school;

b) the difference between young people who have matriculated and then gone to a vocational institution (for skilled workers) and the graduate at the university level will be only two years of schooling;

c) the graduate at the institute level of vocational education who matriculates before entering a vocational institute will have 15-16 years of schooling as will a university graduate who proceeded from upper secondary school. Even the number of school years will be the same, though the graduate at the institute level will be still treated as a graduate at the secondary level.

Two features of these arrangements call for comment. First, they necessitate systematically delayed entry into the workforce for young people. Secondly, the alternative educational routes are such that remarkably similar lengths of education and training are provided for occupations requiring very different skills and offering very different rewards. We would question whether such a relation between education and occupation can be stable, and we wonder whether the Finnish planners have taken full account of this consequence of the educational reforms.

Cost per pupil (student) vary with the different levels and branches of education. The lowest cost per student is for upper secondary education and the highest

Table 2. **Approximate balance of graduates at the secondary level of education by 1988**

		Upper secondary schools	Vocational institutions
1.	Number of students last grade secondary level education	26 000	34 000
2.	Drop out	5 000	—
3.	Matriculated students out of that:	21 000	
	— enter university	10 000	2 000
	— enter institute level of vocational education	7 500	
	— enter school level vocational education	3 500	

Table 3. **Number of school years for different levels of skilled personnel**

School	Skilled workers		Technicians		Engineers		University graduates	
	a)	b)	a)	b)	a)	b)	a)	b)
Comprehensive school	9	9	9	9	9	9	9	9
Upper secondary school[1]	3	—	3	—	3	—	3	—
Vocational school	1-2	2-3	—	—	—	—	—	—
Institute level of vocational education:								
— Lower	—	—	2.5	4	—	—	—	—
— Higher			—	—	3.5	5	—	3.5
Higher level education (university)	—	—	—	—	—	—	4[2]	4[2]
Total number of school years	13-14	11-12	14.5	13	15.5	14	16	16-18

a) With secondary education.
b) With vocational education.

[1] Duration of vocational education under the new reform of secondary education. Under the system now being superseded the duration of vocational education of matriculated students was longer, because only a part of the vocational curriculum was devoted to general education.

[2] The duration of 4 years is not feasible. In practice, the average length of studies is 5-6 years, although according to regulations and in theory it is possible to take a degree in 4 years.

Table 4. **Educational costs per student**
Total for all years of school

In Fmk
(approximation)

	With secondary education	With vocational education
Skilled worker	100 000	92 000
Technician	110 000	104 000
Engineer	110-122 000	104-116 000
Higher level graduate	122 000	169 000

for vocational schools. Taking these different costs into account, the total costs of education for some different occupational levels and different routes to them, shown in Table 3, are calculated in Table 4.

The figures in Table 4 are rough averages, but they do suggest that the cheapest route to university will remain through the upper secondary schools, and the most expensive through the institute level of vocational education. In the case of matriculated students, the educational cost of a skilled worker is exceeded by that of a graduate at the university level by only 22 per cent. Given these circumstances, young people might be expected to prefer to go to the upper secondary school, because that remains the shortest route to university. The longer route through vocational education to the university and professional qualifications is also more expensive. At the same time the sharp separation of secondary level education (into upper secondary and vocational) tends to lead to fairly important social differences and life chances, with no guarantee that the best talents will pass through upper secondary education into university.

The question must, therefore, be raised of the efficiency of separating the secondary level of education into two routes. The decreasing gap in the length of schooling and cost of education for different levels of skill may lead to a further reduction of the differences between wages and salaries for different occupations. What will be the consequences for productive and arduous work?

The majority of students in higher education at the present time are taking their degrees in the humanities (46 per cent), natural sciences (23 per cent), and medicine (10 per cent). Most graduates from these three fields look for employment in the public services and administration, that is, in the sector which is public and financed by the State. However, since the number of students in these fields has not increased in recent years, Finland, unlike many other countries, should escape from the problems that can arise from a surplus of graduates[6].

Educational expenditure

Public consumption and investment take a relatively high share of GDP in Finland and private consumption a low one. The total share of educational expenditure in the distribution of GNP is also notably high (Table 5), at nearly 6 per cent, with approximately 75 per cent coming from the State, and 22 per cent from the municipalities. Not surprisingly, therefore, government funds are strained.

Table 5. **Educational expenditures in 1979**
As % of GNP=100

Total educational expenditures out of GNP[1]	5.7
State budget	4.2
Municipalities budgets	1.3
Private sources (funds, incomes)	0.2

[1] Including expenditure on compulsory schooling, upper secondary education, vocational education, higher education, adult education, occupational training and grants to students.

Source: Ministry of Education.

Moreover, the new educational reforms will demand new financial resources. Since short- and medium-term prospects for expanding the economy are much less favourable compared with the recent past, the problem will be how to find the additional financial resources. Even allowing for the demographically determined fall in the total number of pupils and students, the demand for educational expenditure will increase because of a shift in emphasis to vocational education, which necessarily entails much higher costs. The apparent contradiction between a slower rate of economic growth and the need to increase financial resources for education will have to be resolved, especially as in the present official forecast for 1981-1984 it is estimated that state aid to education will decline by somewhat less than 1 per cent a year up to 1984[7].

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[6] For further information on the supply-demand interaction see: "Koulutuksen Tavoiteohjelmatoim Kunnan", Helsinki, 1978; "Työvoiman Kysynnän Ja Tarjonnan Kehitys Vuoteen 1985", Työ voimaministeriö, Suunnittelnosasto, Helsinki, 1979.

Table 6 shows the distribution of expenditure among the various sectors of education. The structure differs with the different levels of education. The largest part is absorbed by the salaries of teaching and other staff, about 29 per cent by operational expenditures, and 9 per cent by investment. The largest share of expenditures for investment is in vocational schools and in institutions of higher education.

Table 6. **Structure of educational expenditure - 1979**
Percentages

	Comprehensive schools	Upper secondary schools	Vocational schools	Higher education	Total
Salaries	63	74	56	62	62
Operational expenses	30	22	31	23	29
Investment	7	4	13	15	9
Total	100	100	100	100	100
	57	8	21	14	100

Source: Ministry of Education.

Because of the structure of expenditure, the cost per student also differs, as may be seen in Table 7. The objective of providing a substantial vocational branch of upper secondary education has led to higher per student costs and a substantial claim on the public purse. It is met by both central and municipal bodies and in part by private sources. Comprehensive schools are municipal institutions but the State pays on the average 70 per cent of operating costs. Upper secondary schools are, with a few exceptions, also municipal institutions and the State pays on the average 60 per cent of operating costs. About half of the vocational schools belong to municipalities or associations of municipalities, 30 per cent are state schools, and slightly more than 20 per cent are private. The State covers, on average, 80 per cent of the total operating expenses of vocational institutions. The State is responsible for all the expenses of the state-run universities, and 75 per cent of the expenditures of private institutions of higher education.

Table 7. **Costs per student - 1979**

	Yearly Fmk
Comprehensive schools	6 830
Upper secondary schools	5 800
Vocational schools	13 030
Higher education	12 590
Total	8 430

Source : Ministry of Education.

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7. Ministry of Finance, *A Survey of the Prospects for the Finnish Economy and State Finance in the Years 1981-1984*, Helsinki, 1980.

The Ministry of Education determines the size and breakdown of educational expenditure, which is planned every year as part of the state budget. The first demand on the Ministry of Finance by the Ministry of Education is based on established standards and norms for the number of teaching staff and recurrent expenses. The level of negotiated salaries and targets is incorporated in medium-term plans. The final decision on the volume and structure of the state budget for education is decided by government, subject to the approval of Parliament.

Government proposals for education budgeting are very thoroughly discussed in the education section of the Parliamentary Economic Committee. In the phase of preparation the first draft of the state budgets, municipalities collaborate by submitting proposals. These proposals are discussed in the National Board of General Education and the National Board of Vocational Education. As to higher education, the Ministry of Education also makes an annual proposal to the Council of State regarding the budget. This proposal is based on proposals made by each institution and on a statement furnished by an expert body, the Council for Higher Education.

Investment in new school buildings is planned quinquennially. Proposals for the construction of new school buildings are prepared for primary and secondary level education by municipalities and passed upwards through the provincial governments to the Ministry of Education. In more detail, the procedure for each branch of education is as follows:

i) *Comprehensive schools*

Through the provincial government, municipalities propose the construction of new buildings for schools, based on the norms and standards determined by law. The provincial government submits a programme to the National Board of General Education. In its turn, the Board submits a programme for investment in new schools to the Ministry which takes the final decision for each individual school building. The final decision on details of the project is made by the National Board of General Education

ii) *Upper secondary education*

The financial source for investment in school buildings is the depreciation fund. There is no state subsidy for investment in upper secondary schools. The depreciation fund is at the disposal of the National Board of General Education, which determines investment in upper secondary schools.

iii) *Vocational education*

Norms and standards for vocational buildings are not stipulated by law. For this reason the Committee for Building Construction (an inter-departmental body of the government) inspects all proposals for new vocational school buildings. Proposals for new school buildings by the municipalities or private agencies are submitted to the Ministry of Education by the National Board of Vocational Education. Proposals for state-owned school buildings are submitted to Parliament within the framework of annual budgetary request.

iv) *Higher education*

The present investment policy in higher education will remain in force until 1986 under the Act for the Development of Higher Education. The universities annually prepare proposals for investments, which are then screened by the Ministry of Education before submission to the government.

The procedure for investment in the construction of new school buildings is highly centralised, complicated, and lengthy. The standards and norms for school space and equipment are high by international comparisons. Indeed, the standard of new buildings is arguably too high. Our impression is that there are possible economies here and therefore possible relief from the very heavy calls on governmental expenditure in support of the ambitious programme of educational reform and expansion which is still in progress.

Putting all schools, colleges and universities together, it turns out that the State covers about 70 per cent of total educational expenditure. In recent years, about 18 per cent of the state budget has been reserved for education and culture.

This very high contribution of the state budget to total educational expenditures reflects the high level of centralisation. Such a centralised system of education financing makes it possible to redistribute financial sources from developed to underdeveloped regions. Thus, across the country differences in the level of expenditures per pupil (student) are relatively small and the financial inputs to educational institutions are fairly similar, independently of the financial resources of individual municipalities.

Conclusion

In this chapter we have described Finland as a country in transformation. From the beginning of the century, against a background of struggle for independence and escape from agrarian poverty, efforts towards modernisation have been successfully pursued. At their centre has been the pursuit of economic growth, combined with equalisation of living standards and opportunities throughout the regions. Education has been seen as a crucial investment for these economic and social purposes.

We have described the arrangements for educational planning and finance within the more general framework of state planning and public expenditure. Both economic and educational expansion is a fact of Finnish experience and has not yet reached its end. But the processes of development have strained the administrative and financial capacity of the public system. The continuing plans for ambitious educational development are not, and probably cannot be, closely and precisely linked to manpower forecasting. Cyclical market fortunes in world markets have their effect on the public budget no matter how spirited is the resolve to persevere with the programme of educational and social expansion. We suspect that past delays may recur in future and share the anxiety felt in Finland itself that planning, both national and local, will need to be reappraised if it is to meet the challenge of future adaptation to high technology and the problems of attaining and retaining a vigorous and equal provincial life rather than a slowly declining "marginal" Finland remote from the metropolitan southwest.

III

INFANCY AND COMPULSORY SCHOOLING

In Chapters I and II we have outlined the recent history and present structure of Finnish society, and described the framework of planning and administration within which Finns are educated. A picture of rapid development has emerged, and the journey is as yet incomplete. We turn now, therefore, to look in detail at the progress of reform at each of the main stages of education, beginning in this chapter with the years of compulsory schooling which begin in Finland at age seven.

The comprehensive school[1]

Far-reaching reforms have been legislated over the past 15 years. The earlier arrangements, as in most other OECD countries, entailed a system in which two types of schools ran parallel to each other. For the first four years all pupils attended the same school, but thereafter they were split into two quite different types of school. One group entered the gymnasium (a five year lower plus a three year upper secondary school), which provided further general academic education and was the basis for university and college education, while the other group went through a general four-year education and thereafter proceeded to a vocational school or started work immediately. Gradually, more and more pupils applied for secondary school places until, in the late 1960s, almost 60 per cent of pupils every year chose this type of school. Among other things, this tendency obviated the clear need for changes, and the necessity of learning foreign languages had resulted in a gradual modification of the syllabus of the eight-year school. Theoretical subjects were given a bigger place with the result that the differences between the two types of schools were reduced. This was a trend emphasized by those who thought that the existing structure of the compulsory school should be changed so as to reflect the egalitarian principle. The Finns finally decided, after prolonged experimental teaching and discussions in many different committees, to introduce one standard nine-year compulsory school for everyone—the comprehensive school.

The new law concerning the comprehensive school was passed by Parliament in 1968, but the reforms were not put into effect until the period 1972-1979. It was enacted that there was to be one nine-year compulsory school, divided into a six-year lower level, and a three-year upper level. As a general rule, children were to start their compulsory schooling in the year in which they reached the age of seven. The teaching, the schoolbooks, and one meal a day were to be free of charge to all pupils, as was travel to and from school and boarding costs for those pupils for whom it was necessary.

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[1] This is the name given in Finland to the nine-year compulsory school. It is not to be confused with the comprehensive school in, for instance, the United Kingdom.

Financial constraint imposed gradual implementation of the reforms and careful planning by the central school authorities, which worked out a timetable for the transition from the old to the new system in each of the country's 460 or so municipalities. Parliament wanted the nine-year comprehensive school to be introduced first in those municipalities in the north and east which were economically underdeveloped and which had not previously been able to offer the best choice of schools to their pupils. In contrast, the capital, Helsinki, did not change over to the comprehensive school until 1977. The municipalities were responsible for carrying out the transition. One of their main tasks was to ensure that school premises were satisfactory. Some chose to repair and re-employ existing buildings, while others built new ones. Both the municipalities and the State have invested heavily in school buildings and equipment in the last ten years. We have been impressed by the resulting high standards of buildings and equipment though, as we noted in Chapter II, enthusiasm may have led to over-lavish provision in some places.

Putting such an extensive school reform into effect gradually undoubtedly helped to ease the transition for those directly affected by it—the pupils, the heads, and the teachers. Today, the comprehensive school seems to have been generally accepted, although there are some critics who make invidious comparisons between the old and the new systems. Controversy often centres round whether or not the academic attainment reached by pupils is as high now as it was under the old regime. The question is just as difficult to answer in Finland as in other countries. Having visited only a few schools, we cannot say with any certainty just how far the basic changes in the structure of the school system have affected subject matter and teaching method. Our impression confirms, however, what the Director General of the Ministry of Education stated on our first day in Finland: "The reform has first of all been in structure. Changes in content have not been very great". The challenge to the Finns over the next ten years will be how to develop a curriculum appropriate to the aims ascribed to the new comprehensive school.

Day care and pre-schooling

However, before we describe and comment on compulsory schooling, we want to make a few observations on the education of children of pre-school age. In Finland as in the other Nordic countries the compulsory starting age occurs late at the age of seven—late, that is, by comparison with other OECD countries. For this there are two main reasons. The first is the Scandinavian tradition that parents ought to have the primary responsibility for the education of their children especially during their early formative years. The second is that to lower the age for starting compulsory schooling would entail an enormous increase in educational expenditure during a period when costs are already rapidly rising because of the *de facto* extension of the leaving age.

At the same time Finland, in common with nearly all OECD countries, is faced with an insistent and growing demand for day-care places for infants. Today over 70 per cent of mothers with children of pre-school age are gainfully employed and approximately 122 000 children are enrolled in day-care centres. Responsibility for the centres rests not with the Ministry of Education but with the National Board of Social Welfare which operates under the terms of a law that came into force in 1973. At the same time, the Ministry of Education is fully aware of its responsibility and has recently given increasing attention to the pre-schooling problem. It collaborates with the Ministry of Social Affairs and we saw for ourselves that the municipal education authorities are doing their best to serve the needs of as many pre-school children as possible. The law specifies that over and above "care" the centres should provide pre-schooling for five- and six-year-old children. Priority in offering places is given to children whose parents are both working or who are in evident need of care or who are physically or mentally handicapped; some municipalities apply a parental means test.

There is a striking difference in the provision of day-care as between urban and rural areas. About 90 per cent of all places are available in the towns, though a few experiments with the use of mobile kindergartens are being made in some sparsely populated areas. According to a five-year plan for the development of day care 260 000 places are needed. The law stipulates that pre-school places are to be increased at the rate of 13 000 a year. A short-fall will therefore persist for some considerable time.

The consequence of the expansion of day-care centres is that two groups are now entering the compulsory school with contrasting previous experiences, one group having socialised with other children and having been exposed to organised learning opportunities, the other not. The fact that the teachers attached to day-care centres are receiving university level training, combined with other pressures, may well accentuate the difference as day-care centres become more like pre-school centres.

We think that there is much to be said for parents playing a particularly active part in the early education of their children. We also think that there is much to be said for an early, non-familial group experience for children, free from the demands of institutionalised schooling and a pedagogically weighted curriculum. But discrimination lies in a situation where some children have access to day-care facilities and others do not and where some children enter the compulsory school with some command of reading, numerical and social skills and others do not. We would recommend, therefore, that the whole question of day care and pre-schooling calls for a searching investigation, perhaps by a specially appointed commission. And we would argue in favour of using methods and approaches for pre-school children that are strictly designed for their special developmental needs and not overshadowed by pedagogical concerns.

The small rural school

An evaluation of any country's school system must take into account many distinctive factors. In Finland one of these is the country's geographical structure and settlement pattern. The population density is 15.6 inhabitants per square kilometre. As stressed in Chapter I, the most densely populated areas are in the south and the west, while the north and the east are sparsely populated. Here it is a long way between farms and a long way between the small schools. The maintenance of numerous small schools forms one of the characteristic features of the Finnish comprehensive system. At the lower level, about 40 per cent of all schools in Finland are so-called "two-teacher schools", i.e. schools with between 16 and 34 pupils. In one of the municipalities which we visited, Kuusamo, with a population of 17 000, there are 29 two-teacher schools, 10 three-teacher schools, one one-teacher school, and two larger schools at the lower primary level. These figures speak for themselves in terms of the settlement pattern and distances to be covered by pupils in many areas of Finland.

The average recurrent cost per pupil in the small schools is between 100 and 200 per cent more than in a larger school. The Finnish school authorities have, therefore, on several occasions, debated the future of the small schools. Should they be maintained or should they be consolidated into larger schools with the consequences—longer travelling or boarding—that this would have for many of the pupils? For the foreseeable future, the government has decided that the small schools at the lower level of the compulsory school will be maintained.

This might seem a surprising decision viewed from the usual European perspective, but it is a familiar one for any country with a similar settlement pattern to that of Finland. In such countries, people are aware of the limitations of the small school, but they know from experience that a long journey to and from school every day is a serious strain on the youngest pupils. Those in charge are also opposed to boarding for young children because it seems to have a negative effect on their personality growth and development. Moreover, representatives of isolated local communities emphasize the importance of keeping the age groups together. Were all pupils from the age of 7 to 16 to board, this would not be possible.

It is also worth noting that the schools often serve as cultural centres for the local community. For example, it is quite common in Finland for public libraries to operate in co-operation with the schools. Popular opinion is persuaded that village activities become impoverished when a school is shut down. Maintaining small schools is, therefore, commonly a preoccupation of local politics.

But, of course, the Finns are also aware of the limitations of the small school. One difficulty is that the teachers often lack adequate training for all the subjects they are required to teach. A partial solution to this particular problem has been found by using itinerant teachers, for example, for the teaching of foreign languages or for helping pupils with speech, reading, or writing disabilities.

Some OECD countries seem to have difficulty in attracting teachers to sparsely populated areas. This is not the case in Finland where many teachers elect to join small schools. We were told that the distribution of university teacher training departments throughout the country has contributed to this fortunate pattern of preference. However, since a similar distribution of teacher training institutions in other countries has not had the same effect, this is probably at best only a partial explanation. The school authorities in Helsinki pointed out to us that the high cost of housing in the metropolis and the disciplinary problems in some city schools can also lead teachers to prefer smaller schools in rural and sparsely populated areas. For our part, we were impressed by the argument that many teachers quite simply prefer the quality of life in the countryside as opposed to the towns. It may also be of significance here that in Finland the overall supply and demand of teachers is more or less in balance at the moment.

The teaching methods and ways of working in small schools are demanding for both the teachers and the pupils. In study groups which consist of pupils of several different ages, exceptional working methods must be applied. In certain subjects the syllabus is so structured that pupils from two consecutive grade levels study the same topic at the same time. In others the pupils at one grade level have to work individually while the teacher gives instruction to pupils at the other grade level(s). The pupil's own initiative and active participation is encouraged as much as possible in these situations. Equivalent working methods can also be employed to differentiate the teaching in classes of the same age groups.

In small schools with more than one age group forming the same study group there has always been co-operation between older and younger pupils. This type of co-operation, which most often takes the form of the older pupils helping the younger ones, could also be used to advantage in larger schools. It is, indeed, no longer appropriate to see the working methods of the small schools only in terms of drawbacks for the pupil. One disadvantage that the small schools do suffer from is that the presence of only few pupils—especially at the upper level of the comprehensive school—means a limited choice in e.g. foreign languages and optional subjects. Other OECD countries, such as Australia and New Zealand, have tried to compensate for this lack of choice by offering the pupils instruction by distance teaching in certain subjects and aspects of subjects. Beneficial use can also be made of the instructional programmes offered by radio and television.

Sparse habitation also reduces the possibilities of getting the pupils together for extra-curricular activities in the afternoons and evenings. It is not easy to organise a school band or a sports club for 20 to 30 children aged from seven to twelve years old. Children in isolated areas tend, therefore, to have less social contact with their peers than pupils of the same age in larger communities. In order to overcome this problem, some schools in sparsely populated areas in Norway are collaborating on projects involving sport and music, for example, forming a school band with pupils from several schools.

Having chosen to maintain the small schools in Finland, the central school authorities must now ensure that the special needs of these schools are favoured through the laws and regulations, teaching plans, distribution of resources, teaching aids, and teacher training. In this connection, we were impressed by the excellent mobile service of textbooks, specialist books and audio-visual aids provided by municipal libraries.

Bilingualism, minorities, and cultural diversity

In common with other OECD countries which do not have one of the main world languages as the mother tongue, Finland puts relatively strong emphasis on the teaching of other European languages. At the same time, Finland is a bilingual country. Thus, the standing of Swedish, the second national language, in the schools has long been a matter of primary concern. A small minority (6.5 per cent) of the Finnish population is Swedish speaking and their right to be taught in their native language has always been accepted in Finland. There are, accordingly, Swedish schools and educational institutions at all levels and over 30 000 pupils are today attending *Swedish* comprehensive schools. The National Board of General Education has a Swedish Department and at the provincial level Swedish-speaking civil servants administer the Swedish-speaking schools.

In 1968 Parliament enacted that all schools offering a general education should provide teaching in both the national languages—Finnish and Swedish. This means that all pupils in the comprehensive school now have, in addition to their mother tongue, teaching in the other national language and at least one other European language. A second European language is offered as an optional subject in the upper level of the comprehensive school. The current European languages on offer are English, German, French and Russian. Teaching in the first foreign language begins in the third year. About 90 per cent of Finnish speaking pupils usually take English as their first foreign language, while nearly all the Swedish speaking pupils begin with Finnish. The latter group can then take a second foreign language in the fifth year and they usually choose English. The Finnish speaking pupils begin with their second foreign language—usually Swedish—in their seventh year. The remaining European languages are usually introduced as optional subjects in the eighth and ninth years.

The result of Parliament's enactment is that a relatively large number of hours in the comprehensive school must be devoted to language teaching. This in turn leads to the so-called theoretical subjects assuming a dominant place in the school's curriculum, leaving little room for practical subjects and other activities. There are also subsequent problems, to which we return in the next chapter.

Finland has another small but culturally important minority group within its borders. There are about 1 500 Sami, but only a few dozen Sami children are born each year. Though all living in the same region, they speak three different languages. In Finland, as in other OECD countries with similar minority groups, assimilating the Sami into the rest of Finnish society was seen as an important goal until very recently. One of the results of this was that the Sami were taught in Finnish from their very first day at school. However, in the last 10-15 years, as it is well known, ethnic groups all over the world have demanded their right to preserve their language, their culture and, therefore, their own identity. For their part, the Finnish authorities now accept the right of Sami children to be taught in their mother tongue for the first four years of the comprehensive school. Special efforts have also been made to encourage the Sami culture by the inclusion of special programmes in the schools, designed, for example, to promote an understanding of Sami customs and Sami handicrafts. The Sami population is spread over a large area, so that the school children have to board, the cost being covered by the State. In order to secure teachers with a Sami language background, a quota has been reserved for Sami students in teacher training institutions in the universities of Northern Finland.

A pressing problem is the lack of teaching material. There is, for example, no material in Sami for the upper level of the comprehensive school or the upper secondary school. The lack of specialists to work on such material is as much to blame here as lack of money. In the 1970s a relatively small group of the Sami minority have had to assume responsibility both for the production of teaching material and translation from other literatures. The situation will change as the Sami educate more of their own teachers.

We noted that there is extensive co-operation—supported by the Nordic Council—between the Sami populations in Finland, Norway and Sweden. One area which this covers is the Sami radio, which produces and transmits programmes in Sami to all these countries.

Yet another peculiarly Finnish problem should be mentioned here. Since the Second World War, 530 000 Finns have emigrated to Sweden. As the labour market in Sweden has contracted, more and more of those who emigrated have returned to Finland with their families. During the 1970s about 240 000 came back. Of these, some 1 000 a year are children of school age, 80 per cent of whom attend the comprehensive school. These children have first faced the difficulties associated with having Finnish as their mother tongue while attending a Swedish school. Then, having laboriously learnt Swedish, they come back to Finland where most of them attend Finnish schools. Here they need, first and foremost, help in Finnish, but also sometimes in other subjects as well. Usually this kind of teaching is given in small groups. In the upper secondary schools as well as in vocational schools, the return-children in Finland have the same problems as Finnish children in Sweden. They are so few in number that it is difficult to make arrangements for them as a group.

Finally, there is the problem of religious denomination. The population of Finland belongs mainly to two faiths—the Evangelical Lutheran Church and the Orthodox Church. Religious instruction is given throughout the comprehensive school. Wherever at least five pupils in a class belong to a faith different from that which is dominant in the area, they are entitled to religious instruction in their own faith.

Centralisation versus decentralisation

The economic and administrative responsibility for the comprehensive school is shared between the municipalities and the State. Parliament is the legislative and funding authority. All other matters at state level are the responsibility of the Ministry of Education and the National Board of General Education.

The Ministry is responsible for the overall principles of educational policies, for preparing the legislation and the budget. The National Board of General Education is responsible for questions related to the contents of the teaching, e.g. curriculum planning, teaching methods and prescribing text books. It initiates innovation and experimental work in the schools. The central school authority also has a large say in what actually goes on in the schools.

The organisation of the compulsory school is the legislative responsibility of the municipalities. The overall administration of a municipality is run by the Municipal Council. The tasks of the Council include approving the municipal budget and establishing posts.

Responsibility for operations within each school rests with a School Board appointed by the municipal council and composed of representatives of the political parties in proportion to their political strength within the municipality. Two of the members of the School Board must belong to the teaching staff of one of the compulsory schools in the municipality. Each individual school has a school council elected by the Municipal Council. These councils are not decision-making bodies. Their major task is to maintain liaison between the school and the home.

At the provincial level the county government has a division for education and schools. This division performs the functions of a district authority for educational and school matters, supervising and directing schools and educational work in the area according to the policies of the Ministry of Education and the National Board of General Education.

Generally speaking, the local school authorities seem to agree that control over the comprehensive school is too centralised. The state authorities have taken over even in some of those areas where legal responsibility rests with the municipalities, for example, working with the teaching plan. A further example, which was pointed out to us as a particular instance of a bureaucratic and slow procedure, concerns the maintenance and modifying of school buildings. Many representatives of local authorities complained of the crippling effect which an over-centralised system can have on local initiative and development work.

It is unavoidable that decisions about significant changes in school and curriculum structure must be made by the central authority if they are to apply throughout an educational system. On the other hand, experience in many countries has shown with increasing clarity that centrally-directed attempts at educational change tend to fall short of their objectives. There are many and varied reasons for this. Teachers and also, to a certain extent, parents, do not want to have others' successful or controversial experiments thrust upon them. For development work within the education system to prosper, it should, ideally, arise out of the needs of an individual teacher or a teaching staff. Unfortunately, this does not happen very often. But the framework of the school should not be so limiting as to prevent the individual teacher or a group of teachers from exploring new paths to learning. Finland has, in the course of the 1970s changed the structure of the schools. In the 1980s the main effort should be concentrated on what actually happens in the schools, on subject matter as well as methods of working. During this period, it is important that strict limitations and bureaucratic procedures do not hinder initiatives in the municipal councils and in the schools. On the contrary, it should be a major task of the school authorities at all levels to stimulate development work and new ways of thinking. This is necessary if the ideals on which the nine-year compulsory school are based are to be realised, and if the school is to be a good place to learn and a happy place to be in for all pupils.

Participation in decision-making

There are other reasons, too, why the present, centrally-guided system should be reconsidered. It follows from what we have said that the comprehensive school today is heavily stamped with the mark of what is often called a hierarchical structure. Control works step by step in such a way that, in the end, everything is directed and controlled by the central authorities. Such a system tends to create a gap between those who decide and those who are affected by the decisions and this can lead to a passive attitude on the part of the latter.

There are different opinions as to how and to whom decision-making authority should be delegated. In a politically representative system it often seems natural to delegate authority to a political body at a lower level: in Finland's case, to the School Boards in the municipalities, or to the School Council at the individual school, which also has a political composition. The central authorities in Finland are, at the moment, preparing to hand over the authority in certain fields to these boards. In so doing, they have chosen to add to the power of political bodies, without considering the right of school staff, parents, and pupils to be consulted in decisions which affect them.

Staff participation in, and influence over, their own work situation has been a focal point in political debate in the Nordic countries in the 1970s. This has resulted in reforms which ensure that staff and their organisations will have more influence over their own working conditions. Not surprisingly, school staff also make similar demands. The two teacher representatives who at present sit on School Boards will hardly be seen as adequate to satisfy this demand. Other employees within the school are not represented at all.

Pupil participation

One of the guiding aims for the Finnish comprehensive school, and one which is emphasized in the teaching plan, is that the school should prepare pupils for work and participation in a democratic society. It is generally agreed that this is best achieved if pupils are given the opportunity to take responsibility for, and have some influence on, their own working conditions while they are still at school. In other words, co-operation in democracy is seen both as a goal in itself, and as a means or way of operating. As with all other ways of working in school it must be adapted to the pupils' age and level of maturity.

Until very recently it has been generally believed that pupils could be taught about democracy through acquiring theoretical knowledge about society, its democratic institutions, and the voting system. But it has gradually become recognised that such knowledge only becomes meaningful at the moment when it is supplemented by personal experience. Because of this, many countries have introduced pupils' councils and provided for pupil representation on school governing boards. The system of representation must be followed by pupil participation and pupil responsibility in other areas as well. Pupils should gradually be given the opportunity to share in, and take responsibility for, the planning and management of their own work and their own affairs in school. This is particularly important today when responsibility and work is being taken away from teenagers in virtually all areas. There is no use for them in the labour market, there is too little for them to do in most homes. Yet, at the same time, many OECD countries have lowered the voting age to 18. Active participation and the ability to take responsibility cannot be learnt in the course of a lesson. Therefore, pupils, parents and teachers alike must accept that it is a part of the teaching/learning process.

Parents' participation

Most people accept the need for close co-operation between the home and the school. Traditionally, the main task of the School Council has been to establish and maintain this contact. It would also seem desirable that those political representatives whom the Municipal Council choose for the School Councils are parents of children at the respective schools. We were informed that this was not always the case.

On the other hand, parents are consulted over decisions which affect their own children, for example, whether the child should be transferred to a special school or not. They also have their own national independent Parents' Association which tries to influence the decisions taken by the central school authorities.

Parents as such, however, are not represented on any authoritative body for the comprehensive school. Some OECD countries see parents—especially at the compulsory school level—as an important part of the school society and a few have delegated authority to boards where parents are in the majority. When considering the part which parents play within the school, it has been pointed out that having parental authority over a child carries with it a special responsibility which is also relevant as far as the school is concerned. Having parental authority over a child is defined as having the right and duty which parents—or those *in loco parentis*—have to make decisions concerning their child. The special relationship between parent and child makes it necessary for the parents to exercise influence and responsibility within the school. We suggest, therefore, that consideration should be given to increasing parental participation in the running and day-to-day life of the schools.

Equal opportunities in education or selection?

Equal opportunity within education is an accepted aim in all the OECD countries. We shall concentrate in this chapter on the factors of greatest relevance for the comprehensive school. Finland has gone a long way to ensuring that the comprehensive schools are of equal value throughout the country. Through heavily differentiated state support, the disproportion of economic resources among municipal councils has largely been evened out. State support is granted according to the economic capabilities of each municipality. The amount of state aid is also influenced by the structure of habitation in the municipality and by the average size of the schools. Thus, sparsely populated areas may receive up to 90 per cent of the comprehensive school costs as state aid. Everywhere in the country the comprehensive school is thereby enabled to facilitate the passage to further education.

Experience from other countries has shown that economic measures alone are not enough to realise genuine equality of educational opportunity. Most countries, therefore, have instituted organisational changes in the school system hand-in-hand with economic measures. In this way they have tried to achieve greater uniformity of educational opportunities. In Finland one can see this, for example, in the adjustment from a system of parallel schools to one of comprehensive schools. In practice, however, choices with decisive consequences for the individual's future career still have to be made relatively early in the Finnish comprehensive system. During the last three years of the comprehensive school the teaching in certain subjects is given at varying levels of difficulty. Mathematics and the first foreign language have three levels, the second foreign language two. In those subjects which have three courses at different levels, certain vocational institutions and the upper secondary school require at least the successful completion of the medium level course. The corresponding requirement of the second foreign language is the completion of the more extensive level. Completion of only the lowest level restricts eligibility to basic level vocational education. Course selection is made during the 6th school year by the pupil's parent or guardian upon the recommendation of the school. The school has, however, the right to change the selection.

As experience with the nine-year school is accumulated in more and more municipalities, the weaknesses of such organisation become more obvious, and the criticism stronger. One criticism is that perhaps it is too early to make a choice in the sixth year which has consequences for the pupil's education after the compulsory school. This criticism can be supported by the results of investigations which show that a ten-twelve-year-old's school performance has a relatively limited value in predicting future academic achievement. Thus many children with excellent potential for further education may drop out before they have had the chance to fulfil their potential. Furthermore, in Finland, as in other countries which have tried similar systems, it is obvious that certain groups of parents use the criterion of keeping all possibilities open for as long as possible as the basis for their choice of course level. Family background and social and cultural milieu mainly determine the choice of a course which keeps all the possibilities open, as opposed to one which limits choice in further education in a decisive way. This is an important reason why many OECD countries try to delay decision-making within the school system for as long as possible. The United States and Canada, for example, have a well-established open education system which does not restrict possibilities within further education to a choice made in junior high school. The same principle lies behind the introduction of the nine-year compulsory school in the Nordic countries. In these countries, the organisation of teaching at the upper level of the compulsory school has been, and is, a constantly recurring subject of discussion. Organisational differentiation at this level has had similar effects in, for example, Norway, as in Finland.

In 1979 the Council of State issued new guidelines for the development of teaching in the comprehensive schools. The school curriculum is designed to give general qualifications for further studies at upper secondary and vocational school level. A consequence is that a large part of the syllabus through the upper as well as in the lower level of the comprehensive school must be common for all pupils. Instead of classes with different aims and tempo, this assumes that the individual pupil shall, within reasonable limits of the class, be given individualised teaching which takes into consideration his or her particular abilities.

Such aims and methods call for smaller teaching groups in certain subjects, more teaching hours for each individual school, and greater resources for the schools generally. A new way of dividing up teaching hours is being tried out in 23 schools during the academic year 1980-1981. Briefly, the system is that each school, depending on its size and other factors, has a certain number of hours which can be used for teaching one class (32 pupils). It is then up to each school to decide how these hours will be used, for example, whether to have smaller teaching groups for some subjects. A new teaching plan is also being devised at the present time that will indicate the teaching material considered to be essential for all pupils.

An upper level without selection?

The proposed new system in Finland means that the choice of further education and employment will not be made until the end of the nine-year school. However, the system does not solve the problem of differentiation at the upper level (lower secondary). Smaller teaching groups will help, but they must be accompanied by a change in working methods. Teaching guidelines for large groups should be replaced by guidelines for individuals and for small groups within the class structure. In this way, the teacher's role will also change. The teacher will continue, of course, to be an informer—a source of knowledge and learning in the old sense—but will also become, to a large extent, the pupil's adviser in undertaking independent work. This means that the teacher will have to know each pupil very well. Subject teachers at the upper level of the comprehensive school will need to work out methods of close co-operation with their colleagues so as to overcome the limited knowledge of individual pupils which is intrinsic to subject teaching.

Unstreamed schools with a common curriculum present special problems in assessing pupil performance. At present, a modified, so-called "relative" marking system is used, the pupils being spread over a scale from 10-4. When all the categories of pupils are evaluated in the same terms, the system can have very unfortunate consequences for certain groups of pupils. Some years ago, a committee which was set up to investigate the marking system in Finnish schools recommended the principle of relating marking to the aims of each subject. Which system the Finns will finally choose has yet to be decided.

The curriculum and individual needs

The curriculum in the compulsory school in Finland is regulated by law. Those subjects which are common to all pupils, and those which are optional, are regulated by decree. The distribution of hours between various subjects is decided by the Council of State. The decision takes the form of a recommendation, but in practice it is generally followed. The comprehensive school curriculum is drawn up by the State Committee. The general curriculum and the officially decreed allocation of teaching periods make up a national framework within which the municipal authorities can prepare individual curricula for the comprehensive schools within their jurisdiction, subject to the approval of the provincial school authorities. Few municipalities have made use of this possibility. The town of Jyväskylä made up its own curriculum some years ago, but could not obtain approval for it. This precedent has been used by other municipalities as a reason for *not* designing a locally based curriculum.

Traditionally, the teaching plans of the Nordic countries have grouped subjects into year groups and partially specified or indicated those parts of the syllabus which must be included in the teaching. The aim was to ensure that all pupils received the *same* teaching. It is now questionable whether such a system does actually give all pupils an equal chance of achievement at school, for it may be that the adoption of common material favours certain groups. It can be argued, for example, that the cultural milieu which is largely dominated by the middle classes has left its mark on the education systems of Western Europe. This being so, what are the consequences for pupils from other social backgrounds?

Nordic countries have been much engaged in conflicts between town and country, between the centre and the periphery. There are examples from Norway which show that pupils in remote areas tend to reject the culture of the school. It is precisely in these areas where the possibility given by the teaching plan to work on local teaching materials has been advantageously seized.

The desire for more individualised teaching conflicts with a comprehensive, centrally imposed curriculum. In using the new teaching plan it is important to find a balance between two opposing ideals. On the one hand, education should extend to an individual's choice of a future job and way of life. On the other hand, it is also desirable that education takes into account the values and the culture which the children find in their own environment. The teaching plan should contain material common to all and, at the same time, allow for local planning. In a country where there is little experience of local teaching plans, it will be an important task for the school authorities, the research institutions, and the university departments of education to stimulate such work.

The same opportunities for girls and boys?

The different emphasis put on different subjects in the timetable can have a discriminatory effect. We have mentioned that language teaching in Finland leads to a heavy weighting of the so-called theoretical subjects, especially at the upper level. Should the teacher be unable to cope fully with differentiated teaching, then particular groups of pupils will have difficulties coping too. The result—as we know from other countries—is that some pupils no longer thrive at school and come to reject it. Hence the complaint is levelled against the compulsory school that its primary purpose is to serve pupils who have abilities and interests in theoretical subjects.

Girls and boys receive the same teaching in Finnish schools. We noticed during our visit, however, that there are almost twice as many female as there are male students in the upper secondary school. This may be partially due to what is happening at the upper level of the comprehensive school. Because 12-16-year-old girls are more mature than boys of the same age, they are capable of getting more out of the teaching at that level. In 1977, for example, only 12 per cent of the girls, as opposed to 30 per cent of the boys, chose the course which led only to vocational education or directly to employment. At the same time, it is worth mentioning that, since the Second World War, over half the students in the upper secondary school in Finland have been female[2]. This puts Finland in an exceptional position within the Nordic countries. It also means that the teaching in the upper level of the comprehensive school is not the only explanation for the greater number of female students in the upper secondary school.

Compensating the weaker pupils[3]

Efforts to ensure that the comprehensive school offers a realistic opportunity for all children to fulfil their potential draws attention to that group of pupils who, for one reason or another, cannot profit from the educational possibilities of the comprehensive school without extra help and support. Parliament, in its resolution of 1968 on the principles of the school system, stipulated that in moving to the new school system, care should be taken to organise efficiently the teaching of those children who, for reasons of physical or mental illness or disability, could not follow teaching in the ordinary classes. Every attempt is now made to educate all children as far as possible in normal teaching groups, and indeed there is little practical alternative in sparsely populated areas. But pupils who, for one reason or another, have difficulty in following the usual teaching in class can be given auxiliary teaching for a period not exceeding the equivalent of two hours a week for each class. Pupils who need extra help over and above this, or who function better in smaller groups, can be put in special classes. In both theses cases, parental consent must be obtained. Special classes within the comprehensive school can also be organised for emotionally handicapped and socially maladjusted children, principally by means of observation classes. Observation classes can be combined to form an observation school. There are, however, only a few schools of this kind in Finland; in the school year 1977-1978 there were 321 observation classes containing about 2 300 pupils in the 84 largest municipalities.

Teaching in special schools is the oldest and quantitatively the most common form of special teaching within the compulsory education system. Almost all municipalities in Finland have special schools of their own or special schools administered in co-operation with other municipalities in the area. The number of pupils of compulsory school age attending special schools accounts for an average of 1-1.5 per cent of all pupils.

There is special legislation for the education of *deaf and blind children*. Their compulsory schooling starts at the age of six and lasts ten years. The teaching of these children has traditionally been the responsibility of the State and has been organised in state schools. These are usually boarding schools. Today it is possible to establish classes or schools within the municipality for children with hearing defects. This means that more children can live at home while receiving their education. The teaching of children with severe developmental disabilities usually takes place in training schools. The teaching of these children, especially in the more remote areas, may take place in a special class of the comprehensive school. The social welfare authorities are responsible for this teaching. We think that this division of authority should be reconsidered. Two of the schools we visited had groups of children with developmental disabilities. These schools regarded it as a disadvantage that neither the head of the school nor the municipal school authority was responsible for the teaching of these children.

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[2] Nordic Council, Copenhagen 1979, NUB 1979: 4 Kontroller och utbildning.

[3] Veikko Jurama, Special Education for Children and Young People in Finland.

Finland seems to have a well-developed system for those pupils in the comprehensive school who need special instruction. A relatively high proportion of the resources go to individual special schools and classes, but comparatively little extra help is given if the pupil attends an ordinary class. Several OECD countries are trying to integrate as many handicapped children as possible into the normal school. The results of several investigations have shown that special schools do not manage to encourage pupil development any better than ordinary schools. This does not apply, of course, to all categories of pupils. It is therefore important to review the degree of integration, both in principle and for each particular pupil.

School and work

As in other countries, the compulsory school in Finland is intended to give the pupils a wide background on which to base their choice of future education and employment. As we have seen, according to the new plans, pupils will not have to make this choice until they have completed nine years and by that stage they will have been given adequate information about the different possibilities for further education, the choice of jobs, and the employment situation.

At the upper level of the comprehensive school and in the upper secondary schools there are advisers who make sure that this information is given. Many of these advisers have taken a one-year specialised course which includes psychology, social psychology, and vocational guidance. Our perusal of the syllabus suggests that this course is geared more towards psychological than vocational guidance. Even if the balance were to be changed, it would still be difficult, within the limits of a one-year course, to give future advisers adequate knowledge of an employment situation which is constantly changing. This can only be done through continuous contact between the school and the world of work, and necessitates reciprocal and regular visiting between schools and firms and factories. As far as we know, such contact is not extensively practised in the Finnish comprehensive schools.

In the meantime, and as in many countries, there is a search for new ways of bringing about this contact between the schools and the future places of employment. Schools in most countries, including Finland, are building on a tradition characterised by the acquisition of theoretical knowledge that has left its mark on both curriculum and method and creates problems as much for the individual pupil as for the school itself. This explains why, in all countries where compulsory schooling has been extended, there have been drop-out and adjustment problems. Few, if any, countries have wholly solved these problems, but there seems to be agreement that whatever other solutions may be tried it is essential to forge strong links between education and employment.

The interaction between school and society, especially within the employment sector, seems to be receiving little attention in Finland today. This may be due partly to the only recent establishment of the nine-year school. But the problem is endemic among OECD countries, and Finland is not immune from it. We shall pursue the implications of this problem in the next chapter.

Conclusion

There is much to admire in the Finnish provision of compulsory schooling and the patient, pragmatic way in which the transition has been made from the former parallel system to a unified system offering an essentially common learning experience to all children. Ample resources are available, minority rights are meticulously observed and the authorities go to extraordinary lengths to preserve small schools in isolated areas. By international standards of comparison we think that the compulsory school is solidly founded and high in public esteem. The issues and problems to which we have drawn attention mainly arise from the inevitable difficulty of instituting a newly reformed system. The outstanding issue, as we see it, concerns decentralisation. Can participation of all the interested parties in decision-making be made effective at the local community and school level?

IV

UPPER SECONDARY AND VOCATIONAL EDUCATION

A controversial sector

It is today a commonplace of educational criticism and self-criticism in OECD countries that all is not well with the secondary schools. More pointedly, and especially in the shadow of growing youth unemployment, solutions are sought in these countries to the problems of the 16-19-year age group—solutions, that is, to a phase of life in which children enter more or less advantageously and securely into the beginnings of a work career.

We came with these œcumenical difficulties in mind but sharpened further by our awareness of the particular stage of development which has been reached in Finland itself. We were conscious of arriving after at least thirteen years of intense educational reform.

The reform of elementary education, based on the gradual introduction of the comprehensive school, was begun in 1968 with the passage of the Educational System Act, reached a peak in 1972, and was not completed until 1977. This means that another five years will elapse before the first age cohort emerges with experience only in comprehensive schools. The reform of upper secondary education was begun during the 1970s and enabling legislation was passed as recently as 1978. Reform of vocational education will be gradually implemented over the period 1982-1988 at a pace governed by the exigencies of establishing 24 basic branches of study.

Nowhere in the system of education in Finland are the ramifications of the recent reforms more complex than in the sector of upper secondary general and vocational education. While the authorities may take comfort from the fact that there appears to be no contemporary industrialised society where secondary education is not problematic, nevertheless the problems associated with it in Finland are real, will continue to be pressing, and must be vigorously addressed.

There is an interesting comparison to be made between the relative security of the goals and procedures associated with the comprehensive school and the universities, and those associated with the newly expanded upper secondary sector. In the case of the comprehensive school, relative stability is maintained by the fact that there is only one type, that all in the age group must attend, and that, with some alternatives in the upper grades, all must follow the same curriculum. At first glance the universities are different: there are several "types", the student body is voluntary, and numbers are limited. Nevertheless, a certain homogeneity is maintained among the students by virtue of entrance examinations which elimate most of those individuals unable to reach the required academic standard. In addition, both the comprehensive school and the university are supported by general agreement about their aims and status.

No such consensus supports the stability of purpose or practice of the upper secondary sector. Here, while the student is theoretically attending on a voluntary basis, the social and economic restrictions on freedom of choice are severe, for the Finnish authorities are striving to persuade every individual to complete some kind of post-compulsory education. At the same time Finnish students passing through the upper secondary cycle, even though rather older than in most OECD countries, where the school-starting age is one or two years earlier, are experiencing that critical period of their lives when they move through the half-world of adolescence and assume increasing degrees of individual responsibility and autonomy. Further tensions have been added to the upper secondary experience in Finland by the admirable intention to provide wider and more frequent vocational and indeed life-determining opportunities for the students. Choices that were formerly made in the last year or so of compulsory schooling, often with irremediable effect, are now delayed and spread over multiple decision points during the secondary cycle. There are pressures on the system to maintain some stability in the face of such consequences of increased freedom of choice as students deliberately experimenting with several routes or making false starts, both characteristic of the behaviour of young people struggling to come to terms with maturity. These and other consequences point to the need for increased resources in counselling and information distribution if the system is to make sense to the students and to the public that must support it.

The secondary system is also critical for the supply of efficient workers and active citizens to the economy and society. The increasing dependence of the economy upon highly technical resources other than the traditional ones of agriculture and forestry means that the pressure on the secondary system and its capacity to identify and nurture talent will become more intense with every succeeding cohort of students. Unlike many of the other OECD countries the immigration of highly trained manpower will not play a role of any significance. This means that all the specialised talent needed to feed an increasingly technical and specialised economy must be drawn from the indigenous population. Since that population is not expected to rise in the next two decades, the role to be played by the secondary system becomes crucial.

The Finnish authorities recognise the challenge to upper secondary education as we can see from this statement of purpose in the *Helsinki Report:*

> "... secondary education has a common objective, according to which the overall objective of instruction arranged in the upper secondary school and in vocational institutions is to provide the necessary skills from the point of view of the many-sided development of the individual personality, society, and the labour market, career selection and further studies, national culture, and the promotion of international co-operation, and the promotion of educational equality between sexes".

Although these objectives are highly desirable as well as laudable, it remains a question whether they can be reasonably attained through a single period of educational experience ranging from three to six years and generally completed during the first third of an individual's life. It is our belief that the objectives might be more effectively realised if they were set in the perspective and the effective structure of a system of continuing education designed to cover a lifetime. The Finnish situation is especially apt for discussion of this perspective of continuing education and we shall return to it in Chapter VI.

The system of upper secondary education (see Figure 1)

Finnish students, still referred to as "pupils"[1] in most of the literature, enter the secondary system after completion of the nine-year compulsory comprehensive

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[1] We are, of course, aware of this older European conception of "in statu pupillari" and of the continued use of the term "pupil" to describe undergraduates in Oxford. But the advancement of puberty to an earlier age, and the general trend towards earlier social, if not economic, responsibility gives it an increasingly archaic nuance.

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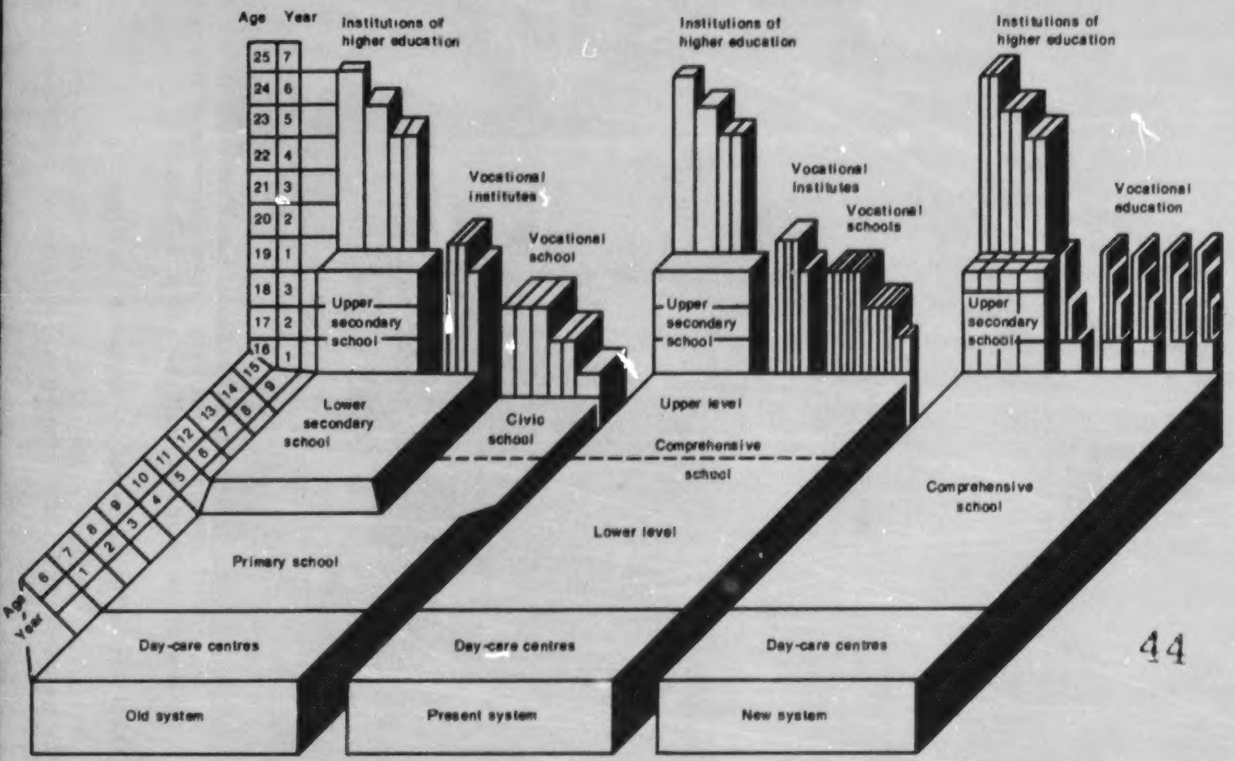
Figure 1

STRUCTURE OF THE EDUCATION SYSTEM IN FINLAND BEFORE AND AFTER THE REFORM IN PRIMARY AND SECONDARY EDUCATION



school. They have by that time reached the age of 16, the last year of compulsory attendance. At this juncture, they are free to choose the more academic studies of the upper secondary school, which prepares them during three years for competition for the relatively limited numbers of openings in the universities, or they may enter the vocational system, which prepares them for a wide variety of employment. Those who opt for that system will either attend school level vocational programmes for one to three years, or institute-level education programmes for three to four years. Under the new arrangements those who enter the upper secondary school and fail to obtain entrance to a university will be able to enter the vocational system at the institute or school level. Those who prefer vocational education after the comprehensive school will be able to choose one of the 24 basic branches. The first year of the chosen basic branch, which is vocational although called a "general" period, will be common to all school level and institute level specialisation branches included in one basic branch. Students completing the institute-level of vocational education may apply for admission to a university programme relevant to their specialisation. Universities are required to maintain a quota of 5 to 25 per cent of admissions for those who have completed the vocational institute level, but who did not enter the upper secondary school. This quota varies according to the field of study.

There were 462 upper secondary schools in Finland in 1979-1980, an increase of 268 in approximately 30 years. About 48.5 per cent of eligible 16-year-olds chose the upper secondary schools in 1979, creating a total enrolment of 108 478 students. Of that number 61 per cent were girls. The average drop-out rate was 20 per cent and in 1979, 27 222 students passed their final matriculation examinations, potential competitors for the 12 000 university places, or to be precise, 10 200 places, since 1 800 places were reserved for qualified graduates from the vocational system.

In 1978, there were 541 vocational institutions including 92 general vocational schools, 71 commercial institutions, 36 health care institutions, 30 technical institutions, 86 agricultural and forestry institutions, and 43 handicraft and home industry institutions. In 1979, 71 163 new students entered the vocational system, of which about 25 per cent were students who had obtained matriculation. Fifty per cent were girls. The fact that there are theoretically more openings in the vocational system than 16-year-olds in the society is somewhat offset by the fact that students who have failed to gain admission in a given year may apply repeatedly in succeeding years. In addition, some students pursue more than one specialised programme in succession. To counteract regional shortages, the State has authorised the establishment of "temporary" vocational education programmes for the period 1976 to 1985, "temporary" meaning the establishment of programmes that do not require permanent buildings or permanent teaching posts. By 1979, about 10 per cent of the new students were entering such programmes.

Upper secondary schools and vocational schools and institutes fall under several jurisdictions. Most upper secondary schools are now under the control of municipalities, although there are a few remaining private institutions. The communal upper secondary schools are governed by a School Board of Directors elected by the Municipal Council. Vocational institutions are owned either by the State or municipalities or associations of municipalities or private groups. An example of the latter are the 50 schools owned by and operating on the premises of large industries. About 51 per cent of the students attend municipal institutions, 35 per cent state institutions, and 14 per cent private institutions.

The upper secondary schools, like the comprehensive schools, fall under the jurisdiction of the National Board of General Education, a body which is also responsible for civic and adult education, schools for the blind and mute, kindergarten teachers' institutes and sports institutes. While local authorities, and to a lesser extent provincial authorities, manage the day-to-day affairs of the schools, the National Board of General Education provides national leadership in curriculum design, supply of materials, training of teachers, the intention being to maintain national standards of achievement throughout Finland.

Vocational schools and institutes fall under the jurisdiction of the more recently established National Board of Vocational Education, which not only provides the same type of national services as the National Board of General Education, but also directly owns a substantial number of schools. The curricula of vocational schools and institutions and in some fields also the textbooks they use are approved by the National Board. Only in a small number of branches, such as telecommunications and railways, defence and security forces, does vocational training fall under other jurisdictions. Centralised control of the upper secondary system came relatively recently. In particular, many of the vocational training agencies had been created and developed under specialised jurisdictions. Both the National Boards implement policies determined by the Schools Department of the Ministry of Education.

Unlike the comprehensive school, neither upper secondary schools nor vocational schools are tuition-free. However, tuition fees are nearly always small and students are assisted by a combination of grants and loans as are students at the universities. Moreover, the present intention is to abolish these fees within a few years. In addition, students in vocational education who live in development areas are eligible for board and lodging assistance or for travel allowances when they attend an institution more than five kilometres from home. The past flexibility of the programmes, especially in the vocational institutions, allowed students to take jobs while attending courses, but at the present time both the lack of job opportunities and the new study demands of institutions scarcely favour this combination of study and employment. In general, students complain that the total sum accruing from grants and loans is too meagre to provide adequate support.

Despite the varieties of ownership and control, state financial support is substantial, ranging from 100 per cent in the case of wholly-owned public institutions to 70 per cent where co-operative management exists. In short, the system is heavily dependent on state support.

The admission system to upper secondary institutions is now administered nationwide, requiring one application from the potential student listing several preferences. However, since institutions also maintain their own selection procedures, there is a certain rank order among institutions within the same category of specialisation. Each year some applicants find no place at all, and this leads to a backlog of applications in the following year's competition, though, as we shall see, some disappointed applicants turn to the employment training centres.

Curricula

The upper secondary school programme is intended to prepare students for matriculation and the right to compete directly for admission to a university. We were struck by the emphasis of the general curriculum on liberal studies, and especially the study of languages. Half of the time devoted to compulsory subjects is given over to languages and literature, a figure comparable to the balance of subjects in the comprehensive schools. When spread over all the optional subjects, the percentage devoted to languages and literature may drop to about 30 per cent or slightly higher. When that proportion is contrasted with a total of 10-17 per cent for mathematics, 11 per cent for history, 7-18 per cent for the sciences, and 5-10 per cent for arts or music, the statement in the *Helsinki Report* that the teaching of languages in Finland is "problematic" can be interpreted in its full significance.

Literacy in spoken and written Finnish gives access to a society of under five million people. Command of that language remains the heart of the culture and the country, but command of Finnish alone restricts participation in the rest of the world, a restriction that an economy based on international trade can ill afford. Command of Swedish, the second national language, provides important access to the Nordic community but to no more than approximately 24 million people. Quite properly, the authorities have recognised the need for the teaching of other more international languages, such as English, French, German, and Russian. At the present time, being able to choose among international languages by the third year, and thereby to defer the obligation to study Swedish until the upper years, Finnish pupils appear to be choosing English in overwhelming numbers. Indeed, we were struck by the informal incentives to opt for English which are reinforced every day by the pervasive popular music, television programmes, films, and signs in shop windows. This language choice is likely to occasion conflict in the next decade with respect to the maintenance of official bilingualism in Finnish and Swedish, since the deferred choice of Swedish allows for fewer years of instruction than may be necessary.

However, the major problem appears to be the heavy burden of time and resources shouldered by the upper secondary schools in providing for so many alternatives in language instruction, and the lesser amounts of time disposable for other forms of "literacy" so essential to a modern society, for example mathematics, sciences, art and music. In this case, a continuing education framework might prove notably valuable in allowing for the learning of languages over longer periods of individual lives and reducing the pressure on the upper secondary school. We are aware of the intense controversy surrounding theories of language teaching and learning throughout the world, but believe that Finland could engage in profitable experiment with starting oral language learning in the day-care centres, and relying more heavily on the summer universities where language instruction already features prominently. At all events, the problems deserve to be more fully discussed at the Review Meeting.

Vocational education

The vocational programmes have been under constant review since the reform of the secondary system began. The Finnish intention is to provide for some general education for those who have chosen the vocational system at the end of the comprehensive school period; to give the student more freedom of manœuvre so that choices of specific skills and knowledge will still allow flexibility when entering the work force; to give students professional advice in identifying their aptitudes and developing them to advantage. The reform is deliberately designed to keep the individual's options open for as long as possible, and to base early choices of study on a realistic appraisal of career opportunities rather than levels of educational achievement.

Under the new system there will be 24 basic branches containing 222 lines of specialisation, of which 119 will be pitched at school level and 103 at institute level. There will be, in addition, 20 separate study lines outside the basic branches. This classification will be achieved by compression of the existing 650 basic study lines. The authorities perceive education for "citizenship" and individual development as being just as important for vocational schools as for upper secondary schools. They also endorse the principle of "learning how to learn" as fundamental to a society and economy subject to rapid and widespread technological change, where specific jobs will keep disappearing and each worker may have to learn new skills several times during his working life.

The multiple intersections of the secondary system with employment cause endless argument all over the world about who should be responsible for providing

Table 8. **The share of subject matter groups in vocational education of the total hours by type of institution**

Percentages

Type of institution	Subject matter grouping[1]				
	General subjects	General vocational subjects	Specialised vocational subjects	Workshop	Total
General vocational schools	10.9	10.1	24.3	54.7	100.0
Technical schools	11.2	19.8	52.2	16.8	100.0
Technical institutes	8.7	20.2	51.9	19.2	100.0
Commercial schools	25.0	11.7	51.0	12.3	100.0
Commercial institutes	29.4	8.3	55.0	7.2	100.0
Agricultural schools	7.1	8.5	43.1	41.3	100.0
Agricultural institutes	11.9	14.0	65.0	9.1	100.0
Animal husbandry schools	9.8	10.3	48.2	31.7	100.0
Dairy husbandry schools	12.1	13.0	61.6	13.3	100.0
Horticulture schools	4.5	4.5	29.5	61.5	100.0
Horticulture institutes	8.0	15.0	60.3	16.7	100.0
Forestry schools	12.3	4.2	34.0	49.5	100.0
Forestry institutes	8.0	8.0	36.5	47.5	100.0
Housekeeping schools	4.8	—	30.5	64.7	100.0
Home economics institutes	3.7	1.8	16.5	78.0	100.0
Handicraft schools	4.3	6.5	21.8	67.4	100.0
Handicraft teacher training institutes	12.4	12.8	69.2	5.6	100.0
Health care personnel institutions	5.1	8.7	25.0	61.2	100.0
Merchant marine schools	16.6	7.6	22.9	52.9	100.0
Average	10.7	13.2	39.9	36.2	100.0

1. This table represents the present situation. The figures will change as the reform of upper secondary education unfolds during the period 1982-1988.

what learning objectives and what is the best time to embark upon this or that aspect of learning. Finland is no exception. However, we believe that the argument is never-ending, that it is the price of the State being involved at all in upper secondary education. The only solution is to subject the system to constant evaluation, negotiation, and adjustment.

Of course, there is a very high degree of institutionalisation of vocational programmes in public hands, despite provisions for visiting work places. Apprenticeship, an equally fiercely-debated system for dealing with the problems of transfer from school to work, occupies a very small part of the vocational system, though some of the practices to be found in schools run by enterprises closely resemble traditional apprenticeships. While institutionalisation and segregation from the work place allow control by education authorities of the balance and quality of study, a noticeable lack in many apprenticeship programmes, they in turn raise problems over the fit with employment, most of which are faced by the individual student. We heard repeated criticism by employers and others of the theoretical bias of various public education programmes, and the danger of courses becoming inflexible against the background of a labour market subject to rapid change. What was surprising was to find no evidence of experimentation with forms of co-operative education, an increasingly common arrangement in industrialised countries, whereby instruction is shared by employers and educational authorities, and the student spends considerable blocks of time under the planned supervision of each of the two sponsors. Average recurrent costs were 24 680 Fmk/pupil, average recurrent costs of vocational schools and institutes were 9 360/pupil.

Table 9. **The distribution of hours in a ten-day study period in the upper secondary school**

	Grades			Total
	I	II	III	
Subjects common to all pupils				
Mother tongue (Finnish or Swedish)	5	6	6	17
1st foreign language[1]	7	6	7	20
Second national language	5	5	5	15
2nd foreign language[2]	7	6	7	20
Mathematics: *a)* Short course	5	5	5	15
b) Long course	8	9	8	25
Geography[3]	3	—	—	3
Biology	—	3	4	7
History, social studies, economics	5	6	6	17
Religion	4	3	3	10
Physical education and health	5	5	3	13
Art or music	3	3	2	8
Average hours	49	48-52	48-51	
Elective subjects for all pupils				
Third foreign language[4]	7	6	7	20
Physics	5	5	5	15
Chemistry: *a)* Short course	3	—	—	3
b) Long course	3	3	4	10
Psychology and philosophy	3	3	4	10
Geography	3	—	—	3
Art or music	3	3	2	8
Minimum requirement of hours per pupil	55	54	54	
Laboratory hours	6-8	4-6		—
Special courses				6
Career counselling				
Administrative matters	1	1	2	4

1. First foreign language: English, French, German, or Russian.
2. Second foreign language: English, French, German or Russian.
3. Compulsory for those who elect the short course in mathematics.
4. Third foreign language: English, Latin, French, German or Russian.

Table 10. **Course centres 1979**

Applied for admission	57 000	**Applicants**	
Started courses	35 000	Unemployed	70.9%
Completed courses	29 000	Under the threat of unemployment	8.3%
		Outside the labour market	7.5%
		Employed	13.3%
Information on those completing courses			
Age: 16-19	14.0%	Mother tongue : Finnish	98.6%
20-24	34.3%	Swedish	1.3%
25-29	21.2%	Other	0.1%
30-39	20.0%		
40-	10.5%	General education	
		Primary school	72.0%
	100.0%	Comprehensive school (new system)	5.0%
		Comprehensive school (old system)	15.6%
Sex : Male	62.5%	Part of upper secondary	0.5%
Female	37.5%	Upper secondary	6.9%

Vocational programmes are, for the most part, conducted by single purpose institutions spread over the whole of Finland. The average enrolment is less than 200 students. In 1978, there were only 86 institutions with more than 500 students. In many, both school and institute level work are combined. Most of the buildings are new with the most up-to-date equipment. While student-teacher ratios are favourable by international standards, the size and distribution of the various institutions raise questions about the even distribution of students and duplication of certain kinds of instruction.

Employment training centres

In addition to the various institutions covered by the vocational system, there are forty-three employment training centres strategically distributed throughout the country. Managed by the Ministry of Education, in close collaboration with the Ministry of Labour, the centres provide short-term training for individual adults who are "unemployed, underemployed, under threat of unemployment or laying-off or whose position in the labour market is weak". Applicants must register with manpower offices where they may be selected for further training by a panel of officials. During training, a student receives unemployment benefits, and all other costs are met by the government. Courses are relatively short and designed to meet actual manpower shortages in the immediate region. However, the centres are for the most part permanent establishments with a proportion of fixed training equipment, though in at least one place that we visited the equipment was not as good as that we saw in institutes and schools. In 1979 48.3 per cent of the trainees were in the 16-24 age group and only 10 per cent were over 40 years of age. Seventy per cent were drawn from the unemployed and 94 per cent had experienced only primary or comprehensive level education. The cost of maintaining a student in an employment centre, including the unemployment benefits, is about three times the cost of maintaining a student in a vocational school or institute. The rate of placing trainees in employment averaged about 70.3 per cent over the period 1975-1979.

It would appear to us that substantial numbers of young citizens view these centres as an alternative to attending a vocational school. The degree to which their relative independence from, and partial duplication of, the formal system is directly related to their 70 per cent rate of success in placing their trainees in jobs should give the authorities food for thought.

Access and the use of talent

The Finnish authorities have established a basic commitment to equity in the provisions of their upper secondary system. Places are found for all students emerging from the comprehensive school who wish to continue their studies. At the same time, determined efforts are being made to make available more educational alternatives, not only with respect to the numbers of occupations open to the student but also with respect to the number of occasions a previous choice can be amended or decisively altered.

On the other hand, the size of the population, the nature of the Finnish economy, and the absence of any consequential immigration, mean that the concern for equity has to be balanced by the effective discovery and use of talent and ability. Since the labour market by itself cannot provide the necessary machinery, the educational system bears a greater responsibility for doing so than in many other countries. It becomes critically important, therefore, not only that more places should be found for those who elect to continue their studies, but that every possible incentive be provided for all comprehensive school leavers to further their education.

Moreover, the secondary system must strive to relate the various programmes that it provides over any given period of time to the real needs of the labour market. That is to say, it must pursue the ideal goal—to paraphrase the OECD Report *Manpower Policy in Finland* (1977)—of delivering the right individual, with the right skills, to the right place at the right time. And the individual must wish to go to the right place.

The most striking result of the recent education reforms has been to move the parallelism of the previous system upwards approximately five years in the life of the student, and thus provide a longer period of general and common education for the young generation. It is hoped that when the first major option, that of continuation into upper secondary school or transfer to the vocational system, becomes necessary the young person will be more mature, more thoroughly grounded educationally and therefore better able to make a wise decision. At present by far the larger proportion of students continue to upper secondary school, the majority of them girls, even though participation in vocational education has increased steadily over the past 20 to 30 years. Our impression is that the authorities, and indeed public opinion, to the degree that it is possible to estimate it, are somewhat ambivalent about this tendency. The willingness to offer a "10th year" in the comprehensive school is perhaps an illustration of that ambivalence. At the same time, it may be a reflection of the desire of some to extend the comprehensive system for another few years, as it is in other countries where divisions between educational activities are more horizontal in terms of the age and achievements of the students than vertical in terms of distinctive educational goals to be pursued.

The continuation of the compulsory comprehensive school from four to nine years ensures the prolongation of a common formal schooling experience for every pupil. This may play a large part, however, in the decision to continue at all costs with the known, that is with the more familiar processes and environment anticipated of the upper secondary school, rather than to take a chance with the less familiar environment of the vocational system. At any rate, in choosing the upper secondary school under the present dispensation, students have little to lose for admission to university remains a distinct possibility provided they do well, and they can always switch to the vocational system if they fail to get into a university or simply change their minds.

The significant number of individuals entering the vocational system *after* the completion of upper secondary school suggests that there is no substantial loss of talent at this juncture. Since we did not have access to information regarding the success in employment of matriculants who attend neither the university nor one of the institutes, it is not possible to tell what matriculation equips a student for other than passage to another branch of education. Nor was there information available indicating the relative success of matriculants in the various institutes to which they go. The reforms are too recent to draw any firm conclusions but the Finnish authorities would be well advised to examine the subsequent careers of samples of school-leavers over a period of time in order to ascertain what lessons might be drawn for the organisation of the upper secondary system.

Problems of the upper secondary school

Two major problems face the upper secondary school. The first concerns the very high pupil/teacher ratio. It is true that this ratio varies according to the subject being taught and that some classes are small. Nevertheless, in many classes, for example, English, a ratio of 35 or 36 to one appears to be not uncommon. Such a ratio is scarcely conducive to effective learning and specifically inhibits small group and individualised study. A significant increase in teaching and building resources is evidently required if class size is to be brought down to an acceptable level.

The second major problem facing the upper secondary school would seem to be the excess of girls over boys especially in view of the relative numerical equality between them at the point of university entrance. A similar phenomenon can be found in most industrial countries and it may reflect the different intellectual maturation rates of males and females as well as rapid changes in the lifestyles and expectations of girls. The very high percentage of mothers of very young children employed in Finland suggests both the existence of traditional attitudes towards work on the part of Finnish women and the fact that the need to tap all the available talent in Finland has already reduced some of the constraining effects of sex-stereotyping to be found in other countries.

Problems of the vocational sector

One response of the authorities to the pull of the upper secondary school has been to try to improve the attractiveness of the vocational system for those faced with a choice at the end of the comprehensive period. In many, if not most, countries prestige still attaches to the university as the preferred route to adulthood, status, and employment. However, in some countries recently, as the immediate employment prospects of university graduates have become uncertain or less glamorous, substantial numbers of students have been making alternative choices within the post-secondary sector. The problem in the past has been that the vocational choice has seemed, and to a degree has been in reality, more terminal in promise than the other, leading to fewer quick rewards and far fewer long-term ones. The Finnish authorities are attempting to counteract this impression by allowing access to the university from the upper levels of the vocational system, indeed by assuming the university to be part of the vocational system.

As already pointed out, the Ministry of Education has recommended in recent years that a quota of between 5 to 25 per cent of graduates from the vocational system should be admitted to the universities, the precise quota to apply depending on the field of study. In practice, this has meant an overall total of 1 000 to 1 200 possible admissions a year. In fact, whereas the yearly number of applicants from the vocational system has been between 2 000 and 2 500, the universities have admitted only 350-700 students a year. Moreover, the number of annual admissions has been falling. The reason for this is that the curriculum of the vocational institutions is not geared to university entrance requirements. We note with interest, therefore, that in order to remedy this anomaly the Act on the Development of Secondary Education stipulates that under the new system the curriculum of vocational institutions will be so designed as to make their graduates eligible for university admission without further study.

Nevertheless, for the student who chooses the vocational system at the end of the ninth year, there is the possibility of spending a further three to six years of upper secondary level studies in contrast to only three years of upper secondary school for the university-bound. At the age of most of these students, six years must loom as a long time especially when those years lack the sense of novelty or accomplishment associated with entering a "higher" system of education. It is, indeed, a long extension of *statu pupillari*. Other countries have multi-purpose teaching institutions offering work of institute level, but included in a tertiary or post-secondary system along with the universities. In fact, the examiners noticed the frequency with which institutes were referred to by the staff as "colleges". Multiple purpose institutions of this kind might serve to enhance the status of various occupations, contribute to the expansion of freedom of decision-making by making alternative vocations more visible, and provide community centres for various kinds of adult education. We realise that it would cause some difficulties in those areas where schools and institutes in specialised areas are grouped together, but believe that there is room for experiment of this kind within the existing system. Such institutions could also take on some of the present responsibilities of the employment centres, as some institutes are now doing, and thereby reduce duplication in buildings, equipment, staff and programmes.

The employment centres present a perplexing problem. They are to a large extent a means of continuous adjustment between the secondary system as it now exists and the world of employment. To the extent that they are pragmatically responsive to the articulated needs of employers, the secondary system as a whole can afford to be more responsive to the overall learning and developmental needs of the students. There is much to be said for that responsiveness, although the cost of duplication may be high. Other OECD countries have experimented with combining the two, both protecting the integrity of the educational process and maintaining very close liaison with employers with a good deal of success and with less duplication of resources.

Administration and control

At first glance the administration and organisation of the secondary system seem to be highly centralised and uniformly spread throughout the country. However, more careful scrutiny reveals a system of considerable variety in sources of control, finance, history, and programming. Not all of this variety is positive, as has been acknowledged in the concern for more even access to vocational education. On the other hand, there is much to be said for the variety of sources of participation in the system, financial and otherwise, and for the skills in administration, negotiation, experiment and compromise that such variety encourages. The principal measure of any system of learning is that in its day-to-day operations, it must contribute to the learning of those who manage it.

There is an admirable degree of flexibility associated with student participation at the upper levels of the education system. The flexibility implied by the development of module-based instruction, both in the universities and the upper secondary school, the lack of distinction between part- and full-time students, the opportunities for qualifications after private study, and the opportunities for admission on the second or third application all betoken an education system with the maximum ease of entry, withdrawal and re-entry—in short, the foundations for an educational system based on the perspective of continuing education to which we have frequently alluded.

Public and private co-operation

We noted in Chapter I some factors of importance to the education system arising from the history of Finnish society. Under Swedish and Russian domination, national identity, centred on language, not only maintained itself, but waxed in strength until it thrust its way into official culture. This emergence was achieved mainly through educational agencies such as the first Finnish schools in the latter half of the last century. That development was sustained by a large and varied network of efforts and organisations that were "private" and voluntary in nature. It was not until well into this century that the dominant instruments of the culture became totally Finnish in character. Implications of this growth are to be found in all facets of Finnish culture, of which the provision for the Swedish language and the protection of Swedish schools and other cultural agencies have been a prominent example. Finnish culture was for centuries a property of the society rather than of the State. When a culture has been essentially private and voluntary in nature, in fact almost of an underground character, and then realises its ambitions to control the public instruments, it is inevitable that the goals and objectives that were pursued voluntarily and privately will be translated into public activities and agencies. It may also be true that those responsible for such translations will continue to take for granted the existence and support of the private and voluntary efforts and networks that formerly provided the backbone of identity and culture. Or they may simply ignore those agencies and traditions as no longer necessary, as no longer central to the maintenance and growth of the society.

Nowhere is this attitude more likely to be present than with respect to education. It is above all the education system which must enlist the voluntary commitment of all individuals to the private and public objectives which sustain the society. It is in the workings of the education system at every level that the legitimacy of private and public goals is tested and worked out. One need only glance at the division of "curricular" and so-called "extra-curricular" activities in any educational agency at any level, in any country, to see this process at work. The balance of the roles associated with being a "student" and with being a "member" are the unstated objectives of all schools in all societies. This has become increasingly true as education systems have extended themselves to include both longer periods of individual lives and a greater range of ages. It has also become more pressing as the experience of industrial societies reveals that there are some tasks that public bodies, no matter how rich or powerful, cannot accomplish. For example, there is no way in which an individual can be forced to learn something specific, no matter what or whose interest is at stake. He or she must wish to do so, must engage voluntarily in doing so if the learning is to be accomplished. As states everywhere come to understand the centrality of learning to their continued existence, they have also come to appreciate the limits of coercion.

Because of their recent history, we think that Finns tend to be ambivalent towards the proper relationship of public and private, state and voluntary endeavour. The existence of a few impressive private institutions within the secondary system reflects both the history of Finland and the imagination and wisdom of the Finnish authorities, as well as the determination of the private will. On the other hand, it was not clear to us what the intention is with respect to the future of public-private co-operation. The enthusiasm and imagination associated with the creation of a modern, public, inclusive education system for the young in Finland is understandable. However, the relationship with the main thrust of adult education—a subject to which we turn in Chapter VI—which seems to remain more reflective of the former private culture, is the most perplexing example of the ambivalence. Despite plans for the reform of adult education, underway since 1978, there seems to be a lack of coherence, a lack of functional relationship between the reformed youth-centred system and the substantial adult education sector, despite the fact that the Finnish government contributes financially to the latter up to 70 per cent of the costs incurred.

A second example of this ambivalence appears to be the limited attention paid to the uses of radio and television in education. We know that there is some "educational" broadcasting and encountered on several occasions the muted enthusiasm for these media characteristic of many teachers in formal systems. But we did not encounter any significant interest in the wider educational or cultural potential of radio and television which might be expected in a society so dependent upon a unique language. Conversely, we became aware of the nearly universal concern over the possible negative effects of television, in particular on the young. In some other OECD countries, broadcasting functions as a valuable means of linking the private and public sectors of the community, a function that seems to us to have been unexplored by Finnish educators.

V

HIGHER EDUCATION

Finland has set itself a formidably ambitious target for post-secondary education. She intends to make it universal. The aim in what is called "the dimensioning" of higher education as formulated in the *Helsinki Report* is that "the total number of openings (admissions) in higher education, together with those in vocational education, will be sufficient to secure a student place in vocationally-specialised education for the entire age-group in the 1980s, and that the distribution of openings by field within this total number would meet as far as possible the demands for a (graduate) labour force". The plan is for a 20 per cent entry of the relevant age-group into higher education with the implication that occupational demand will match the supply of graduates in the later 1980s and 1990s.

We have here, then, an unequivocal announcement of intention to realise the higher aspirations of OECD educational expansion—to offer training beyond schooling for all and, in effect, to give the further guarantee that educational qualification will lead to an appropriate job. Our task in this chapter is to trace the evolution of this remarkable resolve, to assess its present attainments and difficulties, and to appraise its future prospects. We were, of course, impressed at the outset by the confident determination with which the programme is pursued. It is no pipe dream, and its serious intent is all the more impressive in a small country exposed to the political precariousness, the climatic rigours and the economic disadvantages which we sketched in Chapter I. Nor is this a case of delay in the arrival of the disillusion and retrenchment of educational authorities in so many other OECD countries. The demography of the age-groups is recognised along with the uncertainties of manpower forecasting. Budgetary constraint is there, and indeed has already forced delay: but the underlying determination is to democratise educational opportunity, and to provide for an advancing technology by appropriate resources for research and an adequate supply of highly-trained people.

No one can be both brief and precise about the role of the university in the cultural history of Finland. Economically the origins of the Academy of Turku (founded in 1640) belong, as elsewhere in Europe, to the phase of history in which the higher learning was of marginal importance to the mainstream of economic life. Nineteenth-century industrialisation owed very little to universities: their significance was social and political. The University of Helsinki, founded and incorporating Turku in 1828, was mainly frequented by the Swedish speaking sons of the well-to-do, though assimilating some talented and ambitious young men from other classes and other districts. But the importance of the university was that, despite its miniature scale (400-500 students until the 1870s), it gave a forum for political debate and a springboard for the development of the ideas of nationalism and liberalism which eventually flowered as an independent Finland. Hegelianism, ethnography and philosophy combined to produce first a national culture, then a national consciousness, and finally a political demand for independence. In the process the Swedish language began to give way to Finnish, and loyalty to the Russian empire began to give way to adherence to a form of constitutional liberalism justifying Finnish autonomy.

But the political disputes and manœuvres of "the gentry" in Helsinki scarcely touched the peasant life and society of the province. Not until the twentieth century, after the Humboldt revolution in the idea of a university had crossed the Baltic from Germany, and after the establishment of the Faculty of Agriculture and Forestry in 1924, did Finnish higher education begin to develop as a serious adjunct to the Finnish economy. We shall discuss the present connection of policies towards higher education and industrial development in detail. Meanwhile, it may be remarked that the older connection to political and social life, though changed, is no less important today. Universities and their graduates continue to mould national consciousness. Modern nationalism now has has a more conscious internationalism. Finnish students and graduates measure themselves to a significant extent by their standing in the educated classes of Europe and America. They are aware of cosmopolitan standards. Scientists seek recognition in the international networks of specialised expertise. Scholars in the humanities value their links with British, German, or American universities. Finnish survival between East and West, in political and cultural as well as trading relations, is felt to entrust them with special responsibility. And whether in science or letters, the fear of parochialism and isolation is felt as a professional threat made especially strong by the encircling barrier of the Finnish language. The old preoccupation with the social overtones of Swedish-speaking has largely gone. The crucial foreign tongue, one remarkably well commanded by professional people throughout Finland, and competently used in more restricted vocabulary by waiters and shop assistants, is English. Scientific, commercial and cultural exchanges with Russia and the CMEA countries have increased since the Second World War, but consciousness, it might be said, follows both the trade and the flag so that international communication is predominantly in English[1].

In any case, the political functions of higher education have undergone rapid evolution in relation to the internal structure of the country, in two broad directions. There has been, especially since the 1960s, a rapid expansion of access to the universities, urged on strongly by political demands for greater social equality of educational opportunity. And the programme of development thus engendered has been linked to a deliberate plan for regional development aimed at integrating Finland as a whole beyond the confines of Helsinki. Of course, both democratised access to, and regional dispersion of provision for, advanced education have been integral to policies for economic growth, but their speed and direction have been justified as much by political and social values as by industrial and commercial targets.

Growth of higher education

Until the beginning of the twentieth century the University of Helsinki was the only university in Finland. Although several institutions of higher education were founded at the beginning of the century, higher education continued to be concentrated in the two southernmost towns, Helsinki and Turku. In the second half of the century, however, provincial initiative has been strong. The University of Oulu was established in 1959. The Institute of Social Sciences moved to Tampere in 1960 to become the University of Tampere in 1966. Jyväskylä also became a university in 1966, developing out of a previously established Institute of Pedagogics. Self-consciously regional universities began at Vaasa, Lappeenranta, Kuopio and Joensuu in the 1960s, and the latest newcomer for the far north is the University of Lapland, founded in 1979, in Rovaniemi.

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[1] English is the predominant academic language. But German and Russian are of importance for foreign trade. Swedish also remains of importance partly in foreign trade and partly because of the common labour market of the Nordic countries.

These developments as a whole have expanded the system to one of seventeen separate institutions of higher education, and three institutes in the Arts with a student total of 82 000, and an annual intake of 12 000. The details are shown in Table 11. All but six of the institutions have less than 5 000 students. There is still a fairly marked concentration, reflecting the distribution of population, in Helsinki and Turku, with Helsinki dominating the rest in much the same way as the University of London in England, or the Sorbonne in France. The regional foundations are recent, and most are tiny. The universities of Kuopio, Vaasa, Lappeenranta and Lapland all have less than 2 000 students, and are collectively smaller than the University of Turku, or the Helsinki University of Technology.

The problem of access

Given that the aim of policy is to democratise access, the question arises as to whether expansion leads to equalisation. In general, this has been the strategy in OECD countries. In its simple form, the strategy can work as a gradual movement towards universal access of "saturation". That is the story of the gradual raising of the years of compulsory schooling. Up to the advancing point of a statutory school-leaving age democratised opportunity is a fact, but perhaps better described as a truism. For the underlying problem of selection remains, and presumably must always remain while occupations remain differentially skilled and differentially rewarded.

Table 11. **Finnish universities, 1979**

		Number of Students
1.	University of Helsinki	23 290
2.	University of Turku	8 803
3.	University of Tampere	8 407
4.	University of Oulu	7 149
5.	Helsinki University of Technology	7 014
6.	University of Jyväskylä	5 865
7.	Helsinki School of Economics and Business Administration	3 915
8.	Abo Academy, the Swedish University of Turku	3 853
9.	University of Joensuu	2 734
10.	Tampere University of Technology	2 479
11.	Swedish School of Economics and Business Administration	1 545
12.	Turku School of Economics and Business Administration	1 256
13.	University of Kuopio	1 241
14.	University of Vaasa	1 108
15.	Institute of the Industrial Arts	913
16.	Lappeenranta University of Technology	866
17.	Sibelius Academy of Music	749
18.	Swedish School of Social Sciences and Local Administration	355
19.	University of Lapland	194
20.	College of Veterinary Medicine	246
21.	Institute of Theatre	98

Equality in the distribution of limited educational places has to mean fair principles of access, and usually means some test of merit or capacity to profit from the more advanced study in question. Merit, however, is itself known to be the product of complex interactions between hereditary and environmental factors acting on individuals. On the assumption that the relevant genetic factors are randomly distributed between the sexes, the regions, and the social classes, then fairness as between groups can be roughly gauged by measures of proportionate access to selective education. Taking as the first relevant groups successive birth cohorts, it is clear in Finland that those more recently born have had better opportunities for higher education. At the beginning of the dramatic period of expansion in the 1960s, the proportion entering higher education was 12 per cent. It is now 16-17 per cent and, because of the smaller birth cohorts of the late 1960s, it will become 20 per cent by the late 1980s. This is an impressive figure by international comparisons. It is lower than the Swedish figure of 25 per cent[2], but much higher than that of Great Britain, which was 12.4 per cent in 1978-1979, due to decline in the early 1980s, and not expected to rise in this decade above the figure already achieved by both Finland and Sweden in the 1960s.[3]

Sex equality has also fared well in the process of expansion. By 1978 not quite half (49.2 per cent) of students in higher education were women. This, too, represents signal advance towards social equality. On the other hand, however, it must be noted that selection against women remains marked at the post-graduate (licentiate and doctorate) level. In 1978-1979, 54 per cent of the first degree graduates were women, but only 19 per cent of those taking second degrees were women. Moreover, a different, though not necessarily unfair, set of selective processes are at work in the choices made by undergraduates in their field of study. The proportion of females in the humanities, education and pharmacy (70-75 per cent) is three times greater than that of male students. Their share of medicine, social sciences, natural sciences, law and theology varies between 40 and 65 per cent. Their share of engineering is only 15-20 per cent.

The most determined effort towards equality of opportunity in Finland has been the attack on regional disparities since the 1960s. We have remarked the metropolitan origin of the Finnish universities. The regional development programme had made considerable impact by the late 1970s, as may be seen from the

Table 12. **Access to higher education by province, 1977**

Province	Average age group 15-19 years old in 1977	Number of new students in higher education from the province in 1977	% of the respective age group
Uusimaa	14 540	3 212	21.2
Turku and Pori	10 461	1 639	15.7
Aland (Ahvenanmaa)	308	20	6.4
Häme	10 061	1 563	15.5
Kymi	5 612	730	13.0
Mikkeli	3 770	444	11.8
Pohjois-Karjala	3 454	476	13.9
Kuopio	4 578	627	13.7
Keski-Suomi	4 261	571	13.4
Vaasa	7 047	1 017	14.4
Oulu	8 086	1 100	13.6
Lappi	4 178	486	11.6
Total	76 365	11 939	15.1

Source *Helsinki Report*, p. 106, Table 11 figures for regional access to higher education in Table 12. Nevertheless, the disparities remain and the persistence of south western and metropolitan advantage, though by no means unique to Finland, is a question to which we must return.

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[2] See *Reviews of National Policies for Education: Educational Reforms in Sweden*, OECD, Paris, 1981, p. 31.

[3] See House of Commons, *Fifth Report of the Education, Science and Arts Committee*, *Vol. III*, HMSO, London, 1980, p. 534.

Meanwhile, to complete our survey of the social distribution of opportunity for higher education, there are some trend statistics of the social background of students as indicated by paternal occupation in 1961, 1969 and 1980. From this viewpoint the impact of the expansion has been slight. The number of students rose from 23 500 in 1961 to 80 000 in 1980. There was a fall in the percentage of students with backgrounds in the higher professional, managerial, and entrepreneurial classes (from 36 to 31), which was balanced by a rise of 4 per cent in the share of places taken by children of the manual working classes. The details appear in Table 13.

Table 13. **Students' social background 1961-1980**
Percentages

	1961	1969	1980
Upper-level employees and businessmen	36	31	31
Lower-level employees and businessmen	26	28	28
Skilled workers	17	17	19
Unskilled workers	1	3	3
Farmers	18	19	18
Unknown	2	2	1
Total	100	100	100
Number of students	23 500	n.a.	80 000

Source: Finnish Ministry of Education.

A clearer picture of relative chances requires us to relate these figures to the class composition of the Finnish population. Using the population figures supplied for 1970, it appears that 12 per cent of the population were categorised as "upper-level employees and businessmen", and 48 per cent were skilled or unskilled manual workers. Comparing these two groups, the chances of entering higher education in 1980 were 5½ times as high for the upper middle class as for the working class. The comparable figure for 1961 is seven times but, given that the 1970 population figure is used for both estimates, it is possible that the true diminution of inequality was greater than the estimate, since in the intervening period the population proportion of the upper middle class rose, and that of the working class fell. Nevertheless, the remaining inequality of relative chances among children of different social origins must be a disappointment to Finnish policy makers as essentially similar disparities are to those who have pursued the same policy of equalising by expanding educational opportunity in other OECD countries.

The implication from the point of view of occupational mobility between generations is well illustrated in Table 14 which shows, for some of the major professions, how heavily weighted are the chances in favour of those who are themselves born into professional families.

In summary, it may be said that, in company with its Nordic neighbours, as well as many other countries, Finland has pursued equality of opportunity through the upward expansion of the educational system and, again like others, has thereby achieved limited success. We turn now, therefore, to further exploration of the procedures for admission, the financing of students, and the character of regional development, in order to cast further light on the limits of egalitarian policy.

Table 14. **Examples of social selectivity by some academic professions**

Profession	Father's Status				Total
	Upper class	Middle class	Farmers	Workers	
Architects (1970)	39	39	14	8	100
Doctors (1962)	48	30	13	9	100
University professors (1970)	59	25	12	4	100
Lawyers (1964)	40	39	11	9	100
Psychologists (1969)	30	35	18	11	100
Army officers (1967)	12	62	13	14	100

Source : Finnish Ministry of Education.

Admission to higher education

The total number of admissions to the 17 universities is centrally determined on the basis of the 1966 Act on the Development of Higher Education. The Ministry of Education arrives at the number in relation to the resources made available to it, and subdivides the total by fields of study in relation to estimates of labour market needs for scientific and professional workers. The time period of the development programme was originally 1966-1981, but financial constraints have resulted in deferment of the completion date to 1986. By that time, as we have observed, the enrolment percentage will be 20 per cent. Redirection of the balance of faculty output towards engineering, technology, and medicine, and away from the humanities and social sciences, was also envisaged, and has been achieved (Table 15). In the 1970s the humanities and social sciences reduced their share of the rising total of enrolments from 64 per cent to 54 per cent.

Table 15. **Profile of faculty shares - 1980**
Percentages

	Student Admissions 1980
Economics, social sciences, business and law	27
Natural sciences, agriculture, forestry and physical education	18
Arts and humanities	17
Technology	16
Medicine	8
Education and theology	14

Source: Finnish Ministry of Education.

The demand side of student openings does not, however, automatically match the supply side of output from the secondary schools. In fact in 1979, 30 000 matriculants came out of the secondary stage as qualified potential competitors for the 12 000 places in higher education. In consequence, 18 000 were not selected for the universities. Of these, 15 000 found places in one form or another of vocational secondary education, leaving a residual 3 000 who were qualified to go beyond the secondary school but did not do so.

Table 16. **Distribution of enrolment by field**
Percentages

	1966	1970	1975	1980
Humanities	64	62	52	46
Natural Sciences	19	21	25	23
Technology	11	11	15	20
Medicine	6	6	8	10
	100	100	100	100

Source: Finnish Ministry of Education.

It seems, therefore, that despite the ambitious level of university provision, the development, particularly of the upper secondary schools, has been such as to produce an in-built frustration of hopes for thousands of young potential aspirants to a university degree every year. Moreover, we were informed that the prognosis of occupational demand for graduates in the future is far from encouraging. In particular, some graduates in engineering and technology, the natural sciences, the humanities, and education will have difficulty in finding jobs to match their qualifications in the 1980s. The Finnish response to this discouraging outlook has so far not been to reduce university provision. Priority, in other words, has been given to social demand for education rather than to estimated future economic demand for qualified people. Perhaps this is wise. Perhaps manpower forecasting is too uncertain an art. And perhaps the supply of trained workers generates to some extent its own demand. But the possible, if not indeed the probable, outcome is that in effect the whole programme of educational expansion will have progressively deferred selection through schooling from the exit from elementary schools to the exit from secondary schools without providing a clear rationale for the composition of types of post-secondary education. The intended guiding principle has been occupational demand. It that fails, the question has to be faced as to what other principle can justify any particular scale and "dimensioning" of higher education.

As things are, the number of applications far exceeds the number of places. In recent years, 90 000 applications have been presented annually for the 12 000 openings. Estimates indicate that most of the candidates present on average three to four applications and take part in two or three examinations. The *numerus clausus* which operates in all the faculties necessarily leads to entrance examinations, in which 45 000 students took part in 1979. The expansion of the upper secondary school largely accounts for the surfeit of applicants. But the severity of competition is also exacerbated by the laudable attempts of recent years to follow the Swedish example of encouraging older students who have not matriculated in the traditional way to enter higher education. The Ministry of Education has recommended the individual universities and faculties to reserve 5 per cent to 25 per cent of their places for such entrants: but it is no great surprise to learn that so far reality has not met recommendation. About 5 per cent of admissions are of non-matriculated candidates.

The Finnish authorities intend to go on with the task of deepening the channel from secondary vocational institutions to higher education within the framework of the policy of finding a post-secondary place for everyone who wants it. The tentatively accepted idea at this stage is that 20 per cent should be the average share of admissions given to non-matriculants, higher in some fields such as economics, and lower in others such as mathematics or physics. The justification is presumably not only that of making the vocational route as attractive as the upper secondary route and of eliminating blind alleys but also of loosening the tie of higher educational opportunity to lowly social and provincial origin. As such it is a praiseworthy further effort to ensure fair distribution of scarce educational goods. Nonetheless, our basic question will remain. Can the supply of higher education be justified primarily on the market value of the qualifications it bestows? If, as we suppose, there can be no simple affirmative answer, then the problem of criteria of selection, academic and non-academic, becomes all the more complex. Research is necessary, for example, on how to assess suitability for higher education among those who apply from a background of vocational training as opposed to the conventional path of matriculation through the academic curriculum of the upper secondary school. And the answers will vary according to the extent to which a labour market basis is used to determine the content of higher education.

In any case, research is also needed in Finland to diagnose the social selection which already takes place both at and within the gates of the university. Who, socially, are the roughly 30 000 possible candidates each year who do not receive a university place? What are their preferences and alternatives? More generally, how are motives shaped among those who do not apply or persist: and what is the social pattern of drop-out among those who are admitted? We do not have precise answers to these questions from our visit, or from the documents supplied to us.

However, we do have some information on student finance and drop-out. There are no tuition charges for university students in Finland. The financial barriers are those of living costs and earnings foregone. The State helps students directly by a mixed programme of grants and loans, and indirectly by subsidising health care, housing, catering, library services, and day care for students' children. According to the *Helsinki Report*, 170 000 of the 300 000 students in eligible educational institutions receive a student grant, and 116 000 a student loan. Grants comprise 15 to 20 per cent of the cost of living. Student aid is subject to a parental means test and to normal progress through the university degree course. Loans are repaid over a period twice as long as the loan period up to a maximum of fourteen years, and repayment begins one-and-a-half to two years after graduation. We do not know, however, what effect this apparently liberal system of financial aid has on the social composition of university students.

It seems reasonable to infer that student aid reduces the average length of an undergraduate career. Nevertheless, the length of study is planned at 4.5 to 6.0 years. There is in effect no bachelor's degree as in the United Kingdom but instead the equivalent of a master's degree. Hence the financial burden of university study is heavy and drop-out remains a serious problem. Measuring drop-out is made difficult by problems of definition. Using the "passed-through ratio" (i.e. the ratio of the number of graduates to the number of admissions) shows that for the period 1974-1978 the ratio was 0.80 (i.e. 80 per cent of those admitted graduated), but varied from as high as 0.92 in medicine to as low as 0.50 in the social sciences. Drop-out from post-graduate degree courses is much higher than it commonly is in other countries.

The Finnish intention is to reduce drop-out by internal reform of degree syllabi, re-organisation of teaching, and better integration of vocational and academic elements in the curricula. It is too early yet to evaluate the success of these reforms. But it is worth remarking that the average length of study for a degree is long by British standards (three years), if not by continental ones. Any success in reducing the time taken to complete would ease the severity of competition for entrance.

The regional university

Though in one sense a single aspect of the multi-faceted policy of democratising higher education, the regional development programme of the last two decades is much more in that its aim is to integrate economically and culturally the whole of the Finnish nation and territory. Moreover, higher education can justly be described as the spearhead of a regional policy which also includes encouragement to provincial industrial re-location and the geographical evening out of public services. The university is the spearhead in that it is conceived as the instrument for diagnosing the needs of a region by research, disseminating the capacity to use modern scientific culture by teaching, and developing the material and intellectual riches of the region by co-ordination and job creation.

In crudely quantitative terms, the scale of regional development is modestly exciting. Even as late as the early 1960s, only 6 per cent of all student places in higher education were to be found outside Helsinki and Turku. By the mid-1970s, the percentage was 35, and the plan is to raise it still further to 40 per cent or 45 per cent by 1986. We visited some of these new centres at Kuopio, Joensuu, and Jyväskylä. In each place we were struck by the high resolve of provincial ambition. The rectors, professors, and administrators to whom we spoke were in some cases cosmopolitan scholars, in others local enthusiasts. They subscribed to the idea of a university in service to the community, some with missionary zeal, some with a regional and anti-Helsinki pugnacity, some with a slight sense of displacement from the metropolitan network, all with a consciousness of modern Finnish pioneering patriotism. Table 17 shows that although parity of access as between the southern, central, eastern and northern provinces will still not exist in 1986, there have been considerable strides towards regional equality.

More broadly, there are acknowledged difficulties with the idea of a regional university[4]. It can even be argued that since fundamental knowledge is universal, the concept is a contradiction in terms. But this level of semantic dispute need not detain us. The substantive issue for provincial Finland and for developing regions everywhere is whether the region provides a nourishing environment for the social organisation of a university. That the establishment of a university creates jobs and raises student participation rates cannot be seriously questioned. That a university has the potential capacity to raise the cultural, including the technological, way of life of an area is also demonstrable, and it may also serve to co-ordinate to some extent the implementation or application of universal knowledge to develop the life of the producer and the consumer in particular local circumstances. The difficulties, given the inevitable small scale of these institutions, are of two kinds, one pertaining to the academic career, the other to research resources. The career interests of academics are naturally pulled beyond the region to the national and indeed the international stage. There is therefore always the problem of attracting and retaining talent in a regional university. In the first generation of university teachers much reliance can be put on the enthusiastic local patriotism to which we have referred, and to some extent this can be constantly replenished insofar as the regional university gives new opportunity to talented young people in its locality. But we have also mentioned the pull of Helsinki, and could add the further pull of the great centres of science and learning in Cambridge, Mass., Cambridge, England, or Paris.

Similarly with research resources. In many of the sciences and arts the "news" comes mainly from Harvard, MIT, Moscow, Oxford and a limited number of similar centres. There is an international market for both talent and resources

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[4] For an excellent discussion based on Finnish experience, see Ari Antikainen, *The Regional University*. Publication of the University of Joensuu, 1980.

Table 17. Openings for basic degrees in higher education and the size of the respective age groups by provinces

Province	Openings 1979-1980				Openings 1985-1986			
	Numbers	%	Starting age group (17-19 years) Numbers	%	Numbers	%	Starting age group (17-19 years) Numbers	%
Uusimaa	3 935	37	16 240	21	3 810	34	15 410	22
Turku and Pori	1 900	18	10 800	14	1 860	17	10 070	15
Häme	1 395-1 435	13	10 220	13	1 480	13	9 620	14
Kymi	190	2	5 480	7	290	3	4 860	7
Mikkeli	85	1	3 630	5	125	1	2 950	4
Pohjois-Karjala	340	3	3 130	4	530	5	2 530	4
Kuopio	245	2	4 430	6	370	3	3 680	5
Keski-Suomi	925	9	4 020	5	905	8	3 380	5
Vaasa	330	3	6 930	9	340	3	6 480	9
Oulu	1 205	11	7 690	10	1 190	11	6 540	5
Lappi	140	1	4 020	5	270	2	3 070	5
Total	10 690-10 730	100	76 590	100	11 170	100	58 590	100

Source : The Helsinki Report

and a marked tendency for their concentration, just as in Finland itself there has been a concentration in the capital. Regional universities are not powerless to prevent their own relegation to peripheral significance: they can specialise in problems of peculiar relevance to their region, and they can be ever watchful and imaginative in exploiting local opportunity. But adaptiveness is essential and needs *national* support whether in the form of promoting serious exchange with appropriately chosen departments of the major centres, or through bold investment in the particular strengths of particular regional institutions enabling them to compete in carefully chosen specialised fields on equal terms with more established and illustrious universities in other countries. None of this can be effectively done without adequate national funding. So, while applauding the manifest success of the Finnish development of its regional universities, we would ask what plans are being made to solve these two problems which together may be phrased as staying in the "world class" in particular ways in particular places.

A further aspect of the problem of maintaining quality in research and teaching arises from the pace and timing of the expansion programme. On present plans the programme ends in 1986, when there will be 6 300 university teachers, and 7 800 other staff. The rapidity of growth and its impending cessation will have had the effect of concentrating recruitment among the graduates of the 1960s and 1970s. This phenomenon in other countries as well as in Finland poses the problem of whether a drop in standards may have been a necessary concomitant of growth, and more urgently, what is to be done about recruiting those of high academic talent in the coming years when the vacancy rate in the universities will fall. This problem will, moreover, be made the more acute insofar as the pressure on governmental funds for university research and teaching increases.

Administering the system

We have portrayed Finland as a small country with large educational ambitions. Expansion of education has been rapid over the past 20 years. Its historical base has been metropolitan, and its purpose has been to integrate and modernise through policies of regional development. We were, therefore, not surprised to find that the administrative system has been changing, is under strain, and is the object of lively debate as to its future shape. The argument is essentially a continuing one about centralisation and devolution as the system expands.

Centralisation is strong and the universities are, administratively, directly subordinate to the Department of Higher Education and Research of the Ministry of Education[5]. There is no separate organisation with similar functions to the University Grants Committee in Britain, or the Self-Management Community of Interest for Higher Education in Yugoslavia. Planning and development of the system is the responsibility of the Ministry of Education, the Council for Higher Education, the institutions of higher education and *ad hoc* committees. But the central administrators see their role as essentially one of co-ordination in that their national plans are composed of the plans submitted by each institution of higher education. Planning, of course, must take place within a framework of budgetary constraint, and the determination of the national budget takes place through bargaining within government. The civil servants' task is to negotiate on behalf of the universities for a share of the education and science budget, and of governmental expenditure as a whole. They do so again in the light of a composition of the plans and wishes of each institution of higher education.

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[5] The three institutes [illegible] higher education in the arts are dealt with by the Arts Department of the Ministry.

The advantages of central administration are clear enough. From the mid-1960s when President Kekkonen called for plans to bring Finnish higher education and research abreast with the best in Europe, it has been the instrument for co-ordinated expansion and, within the framework of the Higher Education Development Act of 1966, it has secured a steady and fairly predictable flow of resources. True that the fluctuating fortunes of the nation have reduced both the reliability and the rate of increase of funds since the mid-1970s. But unlike many other western countries, Finland still has a programme of planned expansion. We were made aware during our visit that financial stringency threatens the programme, and other OECD Member countries will doubtless be interested to hear in November 1981 what adjustments to the programme are being forced by budgetary retrenchment.

Whatever they may be, the issues of centralisation and devolution remain. We came away with the impression that criticism of the present structure is rather widespread.

We can review, if not resolve, some of the issues by pointing out that it is by no means obvious whether the Finnish universities are to be numbered as seventeen or as one. Perhaps the most realistic perspective is that the system is composed of two or three universities, plus a small group of *Hochschulen*, and another group of specialised colleges and institutes. Viewpoints vary according to appraisal of the *de facto* concentration of power. Opinion varies according to whether importance is attached to a central strategy in a small country to ensure units of a size adequate to carry on the functions of a modern university, or whether institutional autonomy is regarded as of paramount importance.

Accordingly throughout the expansion there has been tension. The history of legislation and debate over the governing arrangements for individual institutions vividly illustrated the point and is recounted in detail in the *Helsinki Report*[6]. The special place of the metropolitan university is reflected in the constitutional right of the Chancellor to be present and to speak in the Council of State when matters concerning the University of Helsinki are discussed. This apart, however, a long battle went on from 1968 as to the form of internal administration with centrist opinion advocating uniformity against diverse particular opposition in the universities among professors and representatives of students. The outcome has been a limited devolution and democratisation of decision-making in a system which remains firmly centralised. The conflicts involved are complex. In retrospect the student movement of the late 1960s for all-out democratisation was resisted, mainly by professorial power. The compromise with respect to the composition of administrative bodies within universities has been that of the tripartite principle through which professors and associate professors elect one-third, other staff one-third, and the students one-third. But what we would regard as an essential principle has been maintained i.e. that election to posts and evaluation of degree theses are responsibilities confined to those who have the equivalent rank or qualification.

These arrangements, recently reached after long dispute, are tentative and subject to continuous review. Again a report on current evaluation would be of interest to the delegates of other OECD Member countries at the Review Meeting in Paris in November 1981.

Another continuing problem of administration deserves special mention. There is some dissatisfaction with regard to the composition of both the Council for Higher Education which advises the Ministry of Education, and the qualifications and background of the Ministry civil servants. The CHE has members who must be experts and are appointed for three years by the Council of State. Some critics argue that the CHE is insufficiently strong and insufficiently expert. Complaint is also heard that the civil servants are drawn too little from the scientific and technological disciplines, and too much from the social sciences and law, though the facts do not appear wholly to justify it[7]. Together these critics want a new body with power and knowledge adequate to the scientific and scholarly life of the universities which is detached from the directly political sphere of the Ministry.

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[6] *The Helsinki Report*, pp. 83-89.

It is not for us to take a view on the continuing debate in Finland. But we note the recent trends in France, Germany, the United States and the United Kingdom for financial stringency to draw policy decisions into rather than out of the offices of state government, and we would therefore ask what the Finns see as the likely future trend for themselves.

Conclusion

This discussion of the Finnish universities does not pretend to be complete. We have said little about the changes in the structure of degrees which are now in train to link university education more effectively to the demand for professional and managerial employees. And though we have been aware of the efforts to develop research in the service of a continuous technological revolution in industry, we have not attempted a comprehensive appraisal.

We have, however, concentrated on the success and the unsolved problem of democratising access to higher education through regional development. This brought us finally to two important issues—the place of the university in the general policy of linking education to working life, and the implications of an expanded system for the administrative arrangements between centre and periphery. These problems of a small yet vigorously advancing country can be raised for further discussion at Château de la Muette with the confident expection that they will be of interest and relevance to the assembled representatives of all the OECD countries.

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[7] Of the civil servants in the Department for Higher Education and Research 34 per cent come from the social sciences, 23 per cent from education and the humanities, 23 per cent from law and 20 per cent from engineering and the natural sciences.

VI

A CONTINUING EDUCATION PERSPECTIVE

Finland possesses more distinctive adult education institutions than many other OECD countries. These include the Civic and Workers' Institutes which provide mainly "citizenship" and popular education courses but also assistance to adults studying for matriculation and other qualifications. In 1979, there were 270 institutes in operation, with a total of 520 000 students.

The folk high schools and folk academies, which are boarding institutions, provide instruction in the humanities, economics, the natural and social sciences and in some practical subjects. Instruction is aimed at improving the general educational level of students, promoting their continuing studies and educating them both as individuals and active members of society. In 1979, there were 48 regular folk high schools, 27 folk high schools with academies attached, and 11 independent folk academies. They enrolled 6 200 students in long courses and 25 000 in short courses.

Any civic organisation may establish a study centre for managing its activities. Modes of instruction are the study circle and lectures. In 1979 Finland had seven such study centres. They organised 20 000 study circles with an enrolment of 180 000 students, 4 000 courses in which 115 000 adults participated and 1 200 lectures with 69 000 participants.

Upper secondary evening schools offer the regular curriculum which can be completed in three years. Anyone over 16 years is eligible for admission, and in 1978 there was a total enrolment of 13 000 students.

With the exception of the employment training centres where the total cost, plus a living allowance, is met by the State, adult education agencies receive support for about two-thirds of their costs from the State. The total expenditure on adult education represents about 1 per cent of the State budget and about 8 per cent of the budget of the Ministry of Education.

Public libraries, which seemed to us exceptionally well equipped and well stocked with books and other learning aids, particularly in some of the smaller communities, offer a variety of programmes. Indeed, we concluded that the services of the public libraries, including a variety of mobile facilities, remove the need for large-scale libraries in individual centres.

In addition, industry and commerce offer a wide variety of education and training programmes, reporting in 1979 an annual expenditure of 600 million Finmarks. Labour organisations maintain several schools in which their members receive instruction related to the pursuit of trade union interests and discussion of broad social and economic problems.

There are 29 summer universities offering instruction in forty places in different parts of Finland. They attract about 40 000 participants, of whom only one-third are regular students. University level courses are offered and some regular education courses can be completed, although not degrees. In addition, there is much language instruction and assistance with upper secondary level studies. Several universities provide "supplementary education" programmes, three universities having established separate centres for the purpose. Various kinds of commercial and professional opportunities are provided for approximately 15 000 students each year.

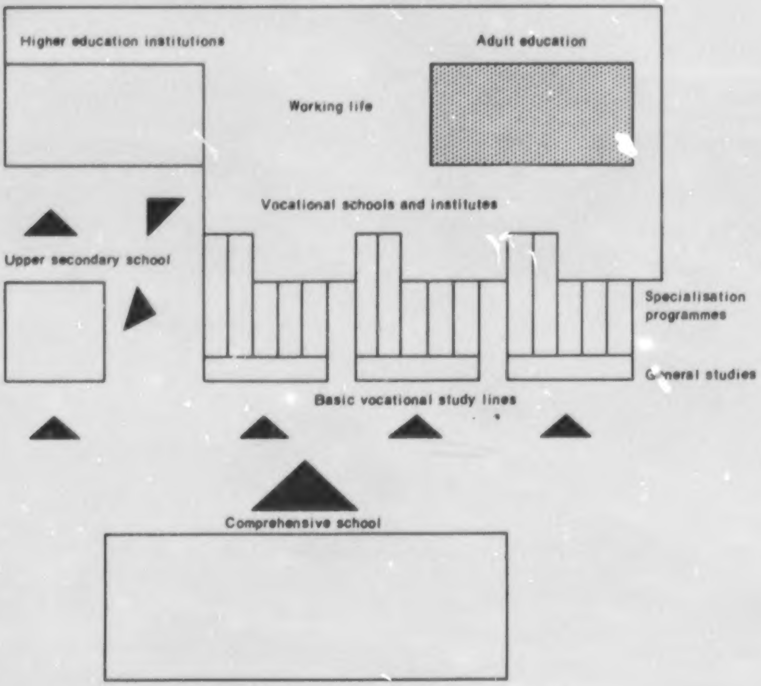
Approximately 25 per cent of the adult population of Finland has regular contact with one sector or another of the adult education system. The percentage enrolled in programmes operated by non-public agencies is not known, but altogether the annual rate of participation is undoubtedly high relative to most other countries[1].

We were informed of plans for the reform of adult education that have been under way since 1978. The Report of the OECD Manpower Policy Review, which commented on the exclusively youth-oriented character of Finnish education in some detail, perhaps gave some stimulus to these plans for reform. The report argued that attention must be given to the education of adults, even if that meant reducing resources for the education of the young.

Yet we were struck by what appears to be a sizable gulf between the preoccupations of those concerned with the education of the young and those concerned with adult education. Figure 2 outlining the new comprehensive school system does not reflect the integration of the education of adults into the system as a

Figure 2

NEW POST-SCHOOL OPTIONS


Higher education institutions
Adult education
Working life
Vocational schools and institutes
Upper secondary school
Specialisation programmes
General studies
Basic vocational study lines
Comprehensive school

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[1] *Cf.*, for example, the statistics recorded in Minister of Education, *Educational Development in Finland 1976-1978*, Helsinki, 1980, pp. 124-5.

whole in any specific functional way, despite the already considerable activity represented in that sector. The *Helsinki Report* itself may be unconsciously revealing in arguing that adult education will have to be primarily concerned with remedial education for some time to come. The absence until now of opportunities for what is called in other countries "adult basic education", that is education necessary to ensure functional literacy among adults whose limited schooling was completed some years ago, no doubt justifies that concern, but the statement seems to overlook the reality of where educational resources are now going in Finland, as in other countries, and where they are likely to continue to go in the absence of the will to reform. In 1978 the Council of State made a so-called "decision-in-principle" about the future development and planning of adult education that enumerates admirable objectives and gives impressive guidelines for action, but we saw few signs of an active policy of implementation.

In almost all OECD countries, the greater part of the facilities, public and private, devoted to adult education are used by those social groups who have already obtained the most benefit from the formal educational system. Only a minor portion of available resources is devoted to the type of remedial education that was once regarded as the primary mission of adult education. The reasons for that uneven distribution are well known, the principal one being that those with the longest experience of initial education know best how to profit from the existing facilities, primarily based as they are on formal institutions, and how to bring pressure to bear to ensure that their demands are satisfied. The examiners did not see statistics to demonstrate this phenomenon in Finland, but most of the indications seem to be present.

As we have seen, the authorities have now reformed compulsory schooling, the upper secondary cycle, and university level studies. It now appears, however, that financial resources are to be frozen before any proper reform of adult education can be set in motion. Yet the very success of the reform of the entire formal system, notably in increasing the number of individuals with upper secondary education, is bound to make demands upon resources for the education of adults that have not so far been allowed for.

Moreover, there are several contemporary trends in OECD countries which apply with special force in Finland. The first is the rate of change in technology and occupational tasks which affects all levels of employment and all age groups indiscriminately, necessitating frequent access, without liability or threat, to opportunities for retraining. Since retraining takes time, and Finland's small population must marshal all its latent human resources, the pressures will be even greater for a system that can command a willingness to learn among its citizens.

Given that all the demographic projections indicate a stable birthrate and stable population, the numbers of young people entering the workforce over the next two decades will be small. Already the 0-19 age group is coming down to 25 per cent of the population and the proportion of adults already employed or at least beyond the conventional school age is increasing correspondingly.

Table 18. **Population by age group—1980-1990**
Percentages

Age	1980	1985	1990
0-19	28.1	26.5	25.6
20-59	55.5	56.2	56.3
60 and over	16.4	17.3	18.1
Together	100	100	100

All this points to the conclusion that the demand for new skills, characteristic of the developing Finnish economy, cannot be met by relying alone on the training and education of new entrants to the workforce. The contribution of the Finnish education system to the retraining of adults will need to be enlarged and organised more systematically than at present, so that those already in the work force can be encouraged to participate in retraining. Pressures on the existing employment centres will undoubtedly intensify sufficiently to make necessary a more articulated relationship between them, the vocational institutes, the universities now becoming active in selective retraining, and the upper secondary system as a whole.

Nor can Finland escape the consequences of increasing specialisation in occupations and their implications for the unity of the society. The goals of socialisation and good citizenship must be actively and tirelessly pursued, even in a non-immigrant society. In this light, we would refer to the conclusion from the Unesco Report on Education of 1971, *Learning to Be*, that it is right to invest heavily in education but mistaken to invest exclusively in the education of the young.

It is for this reason that we would emphasize the need for a perspective of continuing and recurrent education as a necessary corrective to the concept of a front-end system that appears to predominate. In such a perspective, the education system and its parts are defined in terms of reaching specific educational objectives rather than dealing with specific age groups. It acknowledges that while some educational goals primarily concern the young, there will always be adults in the society who need help and encouragement from education in order to fulfil their potential. In other areas of modern society, such as with respect to computer literacy (which appears to be rapidly becoming a basic need) the unevenness of skill or access to learning a skill is accepted. This perspective can appropriately be extended to the education system as a whole.

Having established the desired educational goals and grouped them conveniently as applying to the elementary or secondary or post-secondary levels, it is possible to identify specific agencies for achieving them. Agencies may be defined by geographical location—the present discussion about the impact of regional universities is a case in point—or by their ability to cater to different kinds of individuals. For example, the role of the Civic and Workers Institutes in assisting individuals to prepare for matriculation is of some importance. For how many and what type of individual is this a good or better way of pursuing that goal? Are there many who could be persuaded to pursue their studies in that way? Does Finland need more people who have matriculated or does it need to stimulate the development of other skills among unconventional students in other ways? It is this kind of flexibility and this kind of planning that the continuing education perspective allows.

We have tried to point out those features of Finnish educational practice which might support a perspective of continuing education. What seems to be lacking is an interest in accepting it as legitimate for the system as a whole.

More than most other OECD countries, Finland is dependent for its survival upon what its adults are not, as much as upon what they are, learning. The tradition of voluntary learning for survival is an old one in Finland and still powerful, but the connection between the formal education of children and the voluntary learning of adults needs to be refined and elaborated. One essential step in that direction is to develop a national system of information about opportunities for learning, both short- and long-term. Given the existing structure of formal and informal education in Finland such a system would not be difficult to create or, with a computer base, expensive to maintain.

At present, the major responsibility for overseeing adult education rests with the Ministry of Education, assisted by the Advisory Board of Adult Education. In the past, the fact that most of the adult education agencies dealt exclusively or primarily with general education made this a sensible administrative arrangement.

However, it is clear that there is a rapidly growing demand for adult education geared to vocational needs of the kinds that the employment centres as well as other institutions are already satisfying. The issue of the effective administration of the general and vocational education of adults, distinguished not by subject matter but by the age and characteristics of the learners, has been a source of difficulty in the past in all OECD countries. Various boards, co-ordinating committees, inter-departmental committees and the like have been instituted but all lead to conflicts over areas of responsibility with existing departments and authorities. Within the perspective of continuing education, where the administration is organised in terms of educational objectives rather than age, there may be less difficulty, provided all the administrative units have the capacity to offer instruction and organisation to suit different levels of experience among the learners. It would be an administrative recognition of reality to add a unit for the supervision of the education of adults to the National Board of Vocational Education, as a temporary measure, until the accepted concern for all ages becomes generalised throughout all of the various sectors.

Part Two

RECORD OF THE REVIEW MEETING

Paris, 19 November 1981

I

INTRODUCTION

A small country in a difficult and changing world, educationally and economically ambitious, politically and climatically challenged. So runs the examiners' first appraisal of Finland, and they elaborated it in Chapter I. Their first chapter was, in effect, a short answer to the fundamental question of "What is Finland?". Active neutrality has involved Finland intimately in the system of Nordic co-operation as a lively participant in the Nordic Council. It has ensured realistically cordial relations with the Soviet Union. It has facilitated trading with the Western countries, without membership of the European Common Market but with membership of the European Free Trade Area: it has allowed advantageous trading agreements with the CMEA countries.

Moreover, these carefully orchestrated external relations have been accomplished without damaging strain on Finland's internal political and social life. A democratic political regime with a wide range of political parties has been safeguarded. A vigorous patriotism and a viable democracy co-exist under the leadership of a popularly supported Presidency. Indeed, what has impressed us most is the enthusiastic success of modern Finland in pursuing an integrated internal economic development as one of the richest of industrial countries within the framework of difficult international politics, and despite the very real disadvantages of geography and climate.

The examiners put forward these appreciative assertions not as questions—though they anticipated that the Finns themselves, as well as delegates from other OECD countries, might wish to modify them—but as the predicates of a general educational question viz. whether the Finnish system of schools and colleges is as powerful a servant of further economic and cultural development as it might be. This most general question was the one which the examiners took with them on their visit to Finland. Their report was intended to elaborate it, and to subdivide it into a series of particular questions arranged in the sequence of the chapters. Part II incorporates both the questions and the answers offered by the Finns, as well as the discussion they engendered.

The review meeting took place in Paris on 19 November 1981, well attended by delegates from the other OECD Member countries, by the Secretariat, the examiners, and a Finnish team of eleven led by their Minister of Education, Mr. Kivistö. A sombre note had been struck by the recent news that President Kekkonen had finally had to relinquish office through failing health, so that Finland was having to acknowledge the end of a long and distinguished presidency and to face the task of choosing a successor. At the same time, the more cheerful sound of confident answers to thirty-seven questions pressed more immediately on the atmosphere of Château la Muette. The answers were confident because, despite the widespread and discouraging mood of educational retrenchment in the face of the persistent economic recession among OECD countries, Finland continues to pursue economic growth and to pursue educational development as a significant means to that end.

Thus, at the outset, Mr. Kivistö laid particular emphasis on the reform of secondary vocational education which is planned for the 1980s. The aim, as he phrased it, "is to secure that every youth who has completed the comprehensive school can get some kind of vocational training either on the secondary level or in the institutions of higher education. Our second goal is to secure that the content of this education corresponds to the needs of working life and society as a whole. And thirdly, we aim at improving the individual's possibilities by broadening the educational content and by opening vocational channels to higher education".

II

ECONOMIC DEVELOPMENT AND EDUCATIONAL PLANNING

The examiners began the discussion with a series of questions about the context of educational planning under the present economic and political conditions in Finland, being particularly aware of the unfinished programme of relatively ambitious educational expansion, and of the Finnish determination to ensure an equitable distribution of resources between metropolis and province in the service of a balanced progress throughout the country. The first three questions accordingly referred to Finland's future capacity to fund its educational progress, and to the problems of participation in the difficult decisions involved. They then went on to the three questions concerning the devolution and co-ordination of decision, and ended with a question on the role of research and the monitoring of reform.

Question 1

Finland has been remarkably successful not only in maintaining the level of national expenditure on education but in increasing it in real terms during a period when many other OECD countries have been faced with more or less severe financial constraints. Has it been anticipated that implementation of the recent reforms will entail increasing educational costs during a period when the national financial authorities are also anticipating a slower rate of economic growth?

Mr. Kivistö gave a firm answer: "the growth of educational costs in Finland in the near future (i.e. to 1986) will be smaller than the growth of GNP". The estimated annual growth of GNP is approximately 3 per cent. Private consumption will grow by nearly 3 per cent and public consumption by 2 per cent per year. Since 1977 the aim has been to maintain the gross tax rate at the same level, but in practice it has fallen slightly. If the gross tax rate remains at its present level, and if state borrowing does not increase, the growth of public expenditure could be some 2 per cent per year. The greatest share of this growth will, however, go to redemption of state debts, and to the expansion of pensions; thus the growth in other state expenditure will be no more than 1½-2 per cent a year, and this will entail a slight increase of taxation.

The development of educational costs to 1986 has been estimated on the basis of the Finnish medium-term plan which assumes prevailing legislation and other binding decisions. Educational costs are primarily determined by changes in the number of students, and the implementation of educational reforms. The number of pupils in the comprehensive and the upper secondary school will decrease by some 46 000 by 1986 as a result of smaller age groups and restricted upper secondary education. The operating costs of comprehensive schools will, however, stay at the present level regardless of the diminishing numbers of students. The reforms concerning the maximum size of classes and the organisation of teaching will raise the costs by the same amount as otherwise would be saved. The operating costs of upper secondary schools, however, will diminish at an annual rate of approximately 1 per cent. The total number of places in vocational institutions will not increase significantly. Although the average duration of study will extend as a result of the secondary education reform, recruitment will fall as the age group becomes smaller. The operating costs of vocational institutions will increase by nearly 2 per cent per year, as emphasis shifts to relatively expensive educational fields in response to forecasts of manpower needs. Development programmes based on legislation concerning higher education will result in an annual increase in costs of about 3 per cent. Costs for adult education and employment training will go up negligibly.

Thus the total increase in operating costs for education as a whole will be at least 60 million marks at 1981 prices—an increase of 0.6 per cent per annum. Practical experience has shown, however, that minor reforms implemented in municipal schools and in the annual state budgets usually raise costs so that the bill will rise by approximately 1 per cent. The possible implementation of the development alternatives included in the medium-term plan may accelerate growth in these costs.

If vocational and higher education are to develop as planned, there will have to be a rapid increase in investment. Savings cannot be made in investment on upper secondary schools, or in the comprehensive school programme. In consequence, rising investment costs in education as a whole present a problem for state finance, and there is in any case competition from other sectors.

After 1986 no significant changes in the number of students are expected. The number of pupils in comprehensive schools will increase, but the number of students in upper secondary schools will correspondingly decrease. It is probable that the growth rate for educational costs could also be approximately 1 per cent per annum after 1986. It is possible, however, that plans being prepared for adult education and higher education might change the picture at the end of the decade.

Question 2

To what extent do the roles played by the political parties, the parliamentary education committee and ad hoc *national committees, respectively, contribute to democratic participation in educational decision-making?*

The Finnish political parties have taken an active part in the formation of educational policy, including guidelines for the reform of comprehensive schools, higher education, and adult education. Educational policy interests were intensified during the 1970s when the political parties had to take explicit positions on educational reform. All major parties established their own expert bodies for educational affairs.

Ad hoc committees have been of considerable importance in preparatory work related to governmental educational policy. The political parties have often taken part in this work, the preparatory bodies being composed of many different interests, including those of the political parties. Broad representation in the *ad hoc* committees is sought in order to reach as wide a consensus as possible. On the basis of the work of the *ad hoc* committees there have been general debates and wide consultations to collect the full range of views in the country. At the stage at which draft decisions have been prepared, ministerial committees, including representatives of all the political parties involved in government, have often been appointed to prepare a final decision. Then, on the basis of the emerging proposal of the ministerial committee, the government has usually put in hand the necessary measures, submitting proposals for legislation or for budgetary appropriation to Parliament.

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Direct involvement of political parties is best seen in the work of the Parliamentary committees, among which the cultural affairs and economic committees are most important from the point of view of educational policy. Participation is of great importance in the preparatory stages where the viewpoint of the Opposition is often incorporated into the government's proposals. Nevertheless, the role of Parliament and its committees should not be underestimated. Without the support of Parliament and the political parties represented there, no significant educational reforms could be carried out.

Question 3

We have seen that on the one hand it is now the official policy to encourage participation in educational decision-making at all levels and that on the other hand it is considered necessary to distribute resources evenly throughout the entire country and with maximum efficiency. Is there not some conflict between these two aims?

Mr. Numminen denied any conflict between these two aims. The increased number of participants in decision-making naturally leads to a more complex and slower decision-making process, but it also creates the conditions for an efficient and flexible implementation of decision. Educational expenditure is shared between the central State and the local owner in ratios prescribed by law. The owners of the comprehensive and upper secondary schools are, with a few exceptions, the municipalities. Most of the vocational institutions are also owned by the municipalities, or associations of municipalities. In addition, there are institutions maintained by private sponsors and foundations, as well as state institutions. The cost of the state institutions is entirely borne by the State. This pattern of ownership in itself ensures that there is a large number of participants in decision-making.

The reform of secondary education involves planning arrangements for both quantitative and qualitative development of upper secondary schools and vocational education. The Council of State issues provincial targets for each educational field and level within which the provinces and the institutions can plan the development of secondary education. Administration, as well as planning, has also been delegated from the centre to the provinces, the municipalities, and the institutions. The range of freedom in decision-making among institutions has, however, been restricted so as to prevent the emergence of regional inequalities of opportunity. Accordingly, the curricula of both general and vocational education had to be approved by the central authorities.

Question 4

The provision of education facilities in most rural areas has run ahead of local economic development. Is it intended that education and economic development in the regions should be co-ordinated? If so, what machinery for co-ordination is being used and how effective is it?

Question 5

If there is a case for decentralising the control and management of education is there not also a case for decentralising its financing? This would lead to some disparities in provision but must education standards be the same everywhere?

Mr. Numminen took Questions 4 and 5 together and began by asserting that

Finland always approaches education as a national issue. Thus vocational education is shaped of the basis of manpower forecasts and social and political development. It is, at the same time, a central aim to provide equal educational opportunity in all parts of the country. Consequently educational provision in some regions runs ahead of economic demand in the labour market. But the point is that educational provision is attuned to the labour market needs of the country as a whole. The main responsibility for education lies with the municipalities, whose populations are typically too small to offer reliable grounds for planning the quantity and content of education. State aid is then provided to the municipalities to ensure an equal standard of educational service.

The present programme of reform in secondary education pays particular attention to the problem of aligning educational provision with the economic level of the region. Thus under the 1978 Act, the school departments of the provincial governments co-operate with the municipalities in preparing a provincial educational plan. These provincial plans are co-ordinated by the central administration into a national plan in which the special needs of the regions are taken into consideration as much as possible. It has already emerged that secondary education in agriculture and forestry will have to be expanded. Furthermore, it is intended to offer vocational education for the first time in some districts. The aim is to train a labour force which is both adequate to the productive needs of the provinces, and to exploit the natural resources of each region. The plan is to ensure employment for as many as possible as near to home as possible. There are, however, considerable difficulties in the development of vocational education because of its greater cost compared with general education: and the municipalities have not always been as active in this respect as the state authorities would have wished.

On the side of finance the aim is to achieve greater delegation of planning and decision-making to the local and regional levels. Funding is a partnership between centre and locality (the Ministry of Education accounts for nearly 18 per cent of the state budget). Central funds are distributed for local decision-making, but within the framework of a policy intended to guarantee equal opportunities throughout the country. In pursuing this policy the Finns have partly in mind the continuing migration of young people who need to be able to continue their studies in the municipality to which they move.

Question 6

Are the authorities satisfied with the effectiveness of the machinery for co-ordinating national education policies with overall governmental policy, especially economic and manpower policies?

Mr. Kivistö answered that the co-ordination of educational with economic and manpower policies has been realised, on the one hand, by including representatives of the Ministry of Finance and the Ministry of Labour in the most important planning bodies appointed by the Ministry of Education, and, on the other hand, by taking into account the available economic and manpower forecasts in the work of these planning bodies. The Ministry of Finance also co-ordinates the five-year medium-term plans prepared within each administrative field.

In practice the co-ordination of economic, manpower, and educational policies is complicated by the fact that the educational system moves slowly, and that educational policy has to be made for a longer period than that for which reliable economic and manpower forecasts are available. Co-ordination has succeeded best in employment training and short-term vocational education as these courses can be adapted quickly to changes in labour demand. Thus, quantitative regulation of the supply of vocational education has been created. But there is no equally efficient way of determining the content and quality of vocational education.

Question 7

Compared with some OECD countries educational research in Finland appears to be underdeveloped and largely concentrated in micro problems and on general rather than vocational education. There seems to be no research into the place of education in the changing society and economy. Neither does there seem to be any systematic effort to monitor educational reforms and to evaluate their impact. What plans exist for systematising and enlarging the scope of the national output of educational research?

Educational research has suffered strong fluctuations in its funding. Modest before 1970, it rose in the first half of the 1970s as did research appropriations for the study of social policy and the social services, and fell again in the second half of the decade in both relative and absolute terms. The decrease in educational research funding was greater than in the field of social policy and social services, and Finland lags behind the other Nordic countries in its generosity towards educational research.

The research which does go on in Finland tends to be devoted to either basic education or higher education. The explanation is partly that reforms in these fields began when resources for educational research in general were relatively ample. The starved areas of research are in vocational and adult education. There is now an active movement towards repairing these biases and deficiencies. In 1980 the Ministry of Education appointed a working group to examine the promotion of research in social policy and social services, including education. The working group published its report in 1981, and included a proposal for the quadrupling of research appropriations by 1986. This would give an educational research budget of 20 million Finnish Marks not including research funded directly by the universities themselves. Such a level of funding would represent 1 per cent of the public research expenditure, and a proportionate increase on 1970. Nevertheless, by international comparison, the Finnish investment in educational research remains modest.

A plan for research including the question of which problems should have priority was promulgated in the Ministry of Education in 1980. It appears that, in future, educational research will concentrate on predicting future reforms and on problems connected with adult and vocational education. There will also be research activity on the relation between schooling, working life, and occupational structure in collaboration with the Ministry of Labour.

III

COMPULSORY EDUCATION

Discussion of the years of compulsory schooling in Chapter III gave rise to a series of questions. The examiners sought first (Question 8) a discussion of the future development of pre-schooling given that the compulsory period does not begin until age seven. They turned then to the curriculum and organisation of schools (Questions 9 - 17), paying particular attention to the continuing difficulties of small rural institutions and the problem of language instruction.

Question 8

By comparison with other OECD countries except for the Nordic group Finland has an underdeveloped system of pre-school provision. How much importance is attached to the value of pre-schooling? What is the long-term policy towards its development? Is there any likelihood in the foreseeable future of lowering the school starting age by one or two years?

Mr. Sarjala began his answer by pointing to the variety of arrangements for pre-schooling in Finland. Pre-schooling falls under the competence of the Ministry of Health and Social Welfare with its system of day care. Day care is intended to provide both care and teaching: but during the 1970s the educational function has had greater emphasis.

The Finns attach considerable importance to the training of day-care staff in institutes subordinate to the National Board of General Education. Since 1979 kindergarten teachers have had a three-year training closely connected to university faculties of education.

As the *Helsinki Report* had indicated, day care in Finland had expanded rapidly during the 1970s. In 1978 some 48 per cent of the six-year-olds were attending: in the urban areas the percentage was as high as 57. The plan is to raise the overall national percentage to 54 by 1983, with a 71 per cent figure in the towns.

At this level of provision we would not describe the Finnish pre-school system as underdeveloped. Nevertheless, the possibility of lowering the school starting age by one year has been examined. These is some support for this change, but it is unlikely to be realised in the near future.

Question 9

From time to time the examiners were informed that the major structural reform of the schools in recent years had not been paralleled by a reform of the content and methods. The content, it is said, remains traditional and teaching styles are authoritarian. At the same time the curriculum is closely regulated and all textbooks are prescribed by the National Board for General

Education so that neither schools nor teachers are motivated to be innovative or progressive. Are there any plans for changing content and methods? If so, do they allow for more school-based initiatives and greater freedom for individual teachers?

Mr. Aho replied that, within the next few years, a new way of preparing curricula will come into use which will balance the demand for national unified compulsory education with the desire to offer local variation. The Council of State will provide the guidelines for the distribution of teaching hours and the general principles to be adopted in the curricula. Variations from the recommended distribution of teaching hours will be allowed, depending on the subject to be taught and the importance of it to further studies. The National Board of General Education will lay down the minimum syllabus for the various subjects. The final curriculum will then be determined at the local level within the general framework. Local decision will be by a committee appointed by the school board on which teacher representatives from each level of schooling will sit.

The curriculum will have two parts, one common to all schools throughout the country, and the other allowing local variation.

Mr. Aho underlined the importance of traditional freedom for teachers in Finland to decide about the curriculum. Teaching methods are not regulated centrally, and several alternative textbooks are available in each subject. It is common, in any case, for the teacher to decide what issues shall be stressed within the syllabus or the textbook.

A new system of arranging teaching groups will also be adopted in future. Present regulations determining the maximum and minimum of pupils for each subject and each grade will be given up. Resources will be allocated to schools on the basis of the calculated number of teaching hours for a given number of pupils, and the distribution of this quota of teaching hours between the various subjects will be decided in the school itself.

Question 10

As a result of preserving educational facilities in sparsely populated areas a large number of lower secondary schools and many upper secondary schools are so small that they can only offer their pupils a very limited choice of subjects. Does this not imply some contradiction with the policy of broadening pupils' choices with a view to increasing their career opportunities?

Question 11

No other OECD country is quite so dedicated to the preservation of small schools in sparsely populated areas, which are very expensive to maintain and necessitate limited staffing. Why is Finland so firmly attached to this small school policy and what are the pedagogical consequences of relying on one-, two- and three-teacher schools?

Question 12

Given the policy of maintaining small schools and the resulting problem of how to distribute resources evenly, are the authorities satisfied that the best use is being made of the educational potential of radio and television, both live and recorded?

Mr. Sarjala began to answer the questions about Finland's policy towards maintaining small schools by pointing to the fact of sparse population outside the metropolitan area of the south-west. The cost of increasing the average size of schools would be long journeys to school and the establishment of boarding schools. He argued further that an active school is an integral part of a village community, held to be important for adult as well as child life. A different policy, laying less emphasis on the importance of maintaining the schools, might accelerate migration and reduce other services such as shopping and postal facilities. The school is the cultural centre of a small village, used for adult education and other community meetings. The educational standard of small schools has been kept to the same level as that of other schools, partly by developing special working methods and material suited to the needs of the small school.

Question 13

What measures are being considered for democratising individual schools? More specifically, to what extent are parents and members of the local community being brought into the governance of schools?

Mr. Sarjala informed the meeting that legislation will come in in Finland within the next few years designed to raise parental influence in school affairs. The Municipal Council will appoint a School Council for each school, and the majority of the Council will be parents. The School Council will decide about the annual work plan of the school, and so participate in the arrangements referred to in the discussion of Question 9, i.e. a division of teaching groups within the maximum quota of teaching hours.

Question 17

While noting the existence of "private" agencies in the management of the existing school system the examiners have found it difficult to ascertain the existing policy towards them. Are they being encouraged, discouraged or merely tolerated?

Mr. Sarjala's answer was that private schooling in Finland diminished considerably after the introduction of comprehensive schools. Comprehensive schooling and the greater part of post-comprehensive schooling were generally felt to be most appropriately carried on by the municipalities. New private schools providing comprehensive school education will not be established. Nevertheless, no specific measures have been taken to reduce their number.

Teaching languages

Question 14

The examiners became increasingly aware of the educational problems associated with the provisions made for the teaching of foreign languages. The emphasis on such teaching seems a heavy recurrent cost in both time and other resources, and the examiners were impressed by the achievements. The examiners are aware that nearly 50 per cent of the time spent in the comprehensive school is now devoted to language teaching, leaving little time for other subjects. Are the Finnish authorities intending to alter this balance of study? In addition there seems to be some discrepancy between the numbers of Finnish children who now choose English as their first foreign language and the official aspirations towards bilingualism in Finnish and Swedish. Have the authorities plans for dealing with this apparent contrast?

Question 15

Do the authorities believe that the present choices being made by Finnish pupils and students with respect to language learning will support the official policy of bilingualism in the future? Are they considering the need for some special incentives and supports for learning the second national language for some individuals or groups of individuals employed in relevant occupations?

Question 16

Would the authorities consider spreading out access to language instruction over longer periods of lives and schooling, with the provision of special opportunities and incentives for different individuals or groups of individuals so as to reduce some of the present burden on the comprehensive and upper secondary schools?

Mr. Sarjala also answered these three questions. The Finnish Committee on Language Teaching Policy investigated the issues at the end of the 1970s, but without recommending any change in the arrangements for the teaching of a second national language and foreign languages in the comprehensive school. In the course of future reform it is probable that the municipalities will be commissioned to prepare individual municipal language programmes within the national framework of language teaching. In this way, more learning of the second national language may result, though it must be borne in mind that this commitment is already there for all pupils in Finnish comprehensive schools, starting from the third or the seventh grade. Given that the second national language is compulsory, the choice of the first foreign language has no effect on bi-lingualism in Finland.

Mr. Sarjala also assured the meeting that the study of foreign languages was developing strongly beyond the comprehensive school in vocational institutions and higher education. He finally mentioned that the study of foreign languages is popular in adult education institutes and workers' institutes.

IV

UPPER SECONDARY AND VOCATIONAL EDUCATION

Upper secondary schools

The upper secondary schools, with their gymnasium tradition, are a focal point of difficulty in the development of an educational bridge from compulsory to vocational and higher education. The examiners chose two particular questions:

Question 18

In upper secondary schools girls outnumber boys on an average of two to one. The usual negative explanation of this phenomenon is that boys prefer to go to the vocational sector. Is this an adequate explanation? What are the effects of this gender imbalance on the internal life of the schools and on subsequent access to higher education?

Question 19

In certain classes in many upper secondary schools the number of pupils is as high as 36. Is that not an excessive number? Is there any plan to reduce class sizes?

In reply, it was stated that new legislation will aim to reduce the maximum size of teaching groups to 32 pupils in upper secondary schools. Delay in the reduction of class sizes has partly stemmed from considerations of manpower policy. It is expected that the demand for upper secondary school teachers will fall in the near future. When it does the services of teachers can be retained by reducing class sizes, but meanwhile the implementation of the reform is being delayed.

We were also told that, at present, pupils in upper secondary schools are 60 per cent girls and 40 per cent boys. But the Finns do not regard this imbalance as in any way alarming from the point of view of selection for higher education. Part of the explanation for the sexual composition of the upper secondary schools is that language studies are an important part of the curriculum. It may therefore turn out that a more even balance may result when exemption from studies in the second foreign language is granted to those who take the extensive course in mathematics. It was also suggested by *Mr. Aho* that the preponderance of girls might be related to employment opportunities in that there are more educational alternatives leading to male-dominated vocations than to female-dominated ones.

Vocational education

Question 20

What were considered to be the advantages of separating vocational from general education and creating a binary system at the upper secondary level? Was any consideration given to the feasibility of extending the comprehensive model from lower secondary to upper secondary education?

This and the following two questions were avidly discussed against the background of youth unemployment and public debate in most OECD countries as to the best form of organisation for a transition from school to work. In Finland, as elsewhere, upper secondary schools and vocational education have traditionally been separate. Some countries like West Germany emphasise apprenticeship training, but in Finland the emphasis is on school-based vocational education which accounts for some 70 per cent of all places in vocational education.

Mr. Melametsä observed, however, that since comprehensive reorganisation some unification of general with vocational education has taken place. There has been an increased share of general subjects in the curriculum of vocational education. In practice, however, it has been extremely difficult to find a place for vocational subjects in the curriculum of the upper secondary school.

Finnish vocational institutions are characteristically highly specialised. They are equipped with workshops and laboratories in which students do practical exercises for particular productive lines of work. In other words, the school laboratories closely resemble work places. Because vocational institutions are thus able to provide practical work it often turns out that in developing areas training runs ahead of labour demand for specialist skills. In part and in turn this leads to the necessary changes in the local economy, and sometimes, too, it is the precondition for a diversification of the economic life of a developing area.

Question 21

Nominally at any rate, Finland now treats vocational institutes as a part of the secondary sector. Would there not be advantages in treating the institutes as part of post-secondary education? Would there also be some advantage in decreasing the number of separate institutes and forming more comprehensive post-secondary institutions?

In answering Question 21 *Mr. Melametsä* reminded the meeting that vocational education at the institute level is administratively part of secondary education in Finland. Different ministries were originally responsible for organising vocational education in their particular sphere with the result that specialist institutions were set up, often providing both the school and the institute level of training as in commerce and health care. The institutions were also unevenly distributed through the different regions, more amply provided in the richer and more sparse in the less populated areas.

The new comprehensive school will make all its pupils eligible for vocational education whether at the school or institute level. Accordingly, implementation of the reform has involved attempts to achieve a more efficient co-operation between institutions teaching at the school and the institute level in each field.

Mr. Melametsä went on to argue that Finland was unlike many other countries in that it developed its institutions of higher education as both teaching and research centres. For this reason it was not considered appropriate to include institute-level vocational education in institutions of higher education. Instead, vocational education was separately organised. He added that even though institute-level vocational education is administratively part of the secondary education system and subordinate to the National Board of Vocational Education, the practical consequences were of no significance. In practice, the expansion of higher education and vocational education has been treated as a whole in the Ministry of Education. On present plans and conceptions of secondary education reform in Finland, it seems unlikely that institute-level vocational education will be concentrated into bigger units. The regional distribution of this type of training is more uneven than that of school-level institutes. For this reason, and because of the development of vocational subjects within the secondary school curriculum, it is likely that vocational institutes will be regionally dispersed by locating them together with school-level institutes in the same field.

Question 22

It appears to the examiners that the availability of opportunities to transfer from the vocational sector to the universities is part of the policy of encouraging more students to enter that sector after the comprehensive school. Would this objective be reached more effectively by improving the status and position in Finnish society of the skills and abilities promoted by the vocational system in contrast to those promoted by the universities?

Mr. Melametsä went on, in reference to Question 22, to note that the opening of an educational channel from vocational education to higher education is primarily intended to increase the freedom of students to choose their own educational path. The vocational channel makes it possible for those students who leave the comprehensive school with a clear idea of the field they prefer to start vocational studies aligned to their interests and inclinations without losing the possibility of further study as they do in the present system. The new Act provides that students leaving the comprehensive or the upper secondary school must be offered an opportunity to enter vocationally-specialised education at one level or another and according to the specialist demands of the labour market. Thus, the proportion of the relevant age group continuing in the upper secondary school does not affect the numbers who are offered vocational training, but only the number of openings for matriculated students.

V

HIGHER EDUCATION

The long run and rapid development of the Finnish universities since the mid-1960s has been an outstanding feature of the country's recent experience. The examiners asked a general question (Question 23) about the success of that experience, and then focused on some particular questions on teacher training (Question 24), admissions (Question 25), and staff recruitment (Question 29). They also raised again the problems associated with the organisation and control of the system (Questions 26 and 27) and the role of the universities in research and development (Question 28).

Mr. Kivistö began this part of the discussion with a brief description of the Finnish planning system, and with reference to Questions 23, 25 and 28, which were as follows:

Question 23

In 1966 Parliament passed an Act for the long-term development of universities designed to ensure steady growth and a rational distribution of resources among institutions. What have been the benefits and difficulties of implementing a long-term plan?

Question 25

In common with a number of OECD countries Finland has now imposed a numerus clausus *on admissions to universities. There are to be 12 000 entrants each year or 20 per cent of the age cohort. How was this percentage determined? Is it compatible with the policy of stimulating one hundred per cent participation in upper secondary general and vocational schooling and does it allow for the likely increase in demand from adults for higher education?*

Question 28

How satisfied are the authorities with the contribution of the universities to research and development? Do they provide a good evaluation of the process of social and technological change? Do they have the right outlook? Is post-graduate education making a co-ordinated and fruitful contribution to the generation of knowledge?

Mr. Kivistö pointed to the underlying causes of the expansion of Finnish higher education and the drive towards regional development. Expansion was propelled by the relatively large age groups born after World War II, the rapid growth in upper secondary school enrolment, structural changes in the economy, and a general rise in the standard of living. These pressures were felt in the later 1950s and early 1960s, and the response was to create more student places in those subjects which were relatively inexpensive—the humanities and the social sciences.

During that period Finland had a shortage of people with formal qualifications in engineering, technology, the natural sciences, and medicine. Accordingly, the development plan for 1967-1981 made under the 1966 Act provided for expansion in those fields which would best meet national manpower requirements and ensure the necessary resources for the development of higher education. The Act assumed a minimum of 60 000 places in higher education by 1981, implying an increase from 10 per cent (1966) to 20 per cent (1981) of the age group. The thrust of the expansion was particularly towards medicine, the natural sciences, engineering, and technology. The Act included minimum targets for resources in each major field of science. Development in these terms had to be slowed down at the end of the 1970s, and the programme extended to 1986.

In any attempt to assess this period of legislation and development, it should be borne in mind that the fifteen years after the Act saw enrolment increase from 42 000 to over 80 000, the number of teachers went up from 2 400 to 5 600, the number of institutions rose to 17 and were evenly spread throughout the country, floor space devoted to educational facilities nearly tripled, a new basic degree system was instituted, and teacher education was integrated into the universities. In summary, Mr. Kivistö asserted, the Development Act ensured a fairly stable resource development, despite fluctuations in the national economy, and was a useful device for the development of quantitative planning both in the institutions of higher education themselves, and in educational administration. The result has been a period of strong expansion in higher education, and, at the same time, of rapid regional development providing an even spread of opportunity and educated people through all the regions of Finland.

Mr. Kivistö then went on to offer an answer to the question of how the 20 per cent university admissions figure had been arrived at by referring to the whole context of educational planning and what the Finns called the "dimensioning" of higher education. We have already noted the Finnish plan which calls, by the end of the 1980s, for the provision of vocational educational opportunity to everyone who completes the comprehensive or the upper secondary school. Within this universal guarantee places will be provided according to estimates of labour force needs. The plan assumes that higher education will offer places to 20 per cent, institute-level vocational education for 30-35 per cent, and school-level vocational training to 45-50 per cent of the relevant age group.

It thus appears that the structure of post-secondary education is determined by labour market forecasts, but Mr. Kivistö insisted that this was not in fact the essential basis for Finnish planning. Both social demand considerations and appraisals of future changes in the national need for various professional and occupational skills justify somewhat higher numbers of places than would be the case if reliance is put entirely on manpower forecasts.

With respect to research, Mr. Kivistö emphasised the important role of the universities which take up 40 per cent of the public allocation of research funds. The role of the universities is further emphasised by the fact that almost all basic research in Finland is carried out within their walls, as is the training of researchers.

The universities in Finland, as in other countries, derive their resources in three ways: from their own budget, from research councils, and from industry. The most important body here is the Academy of Finland, which in practice is a system of research councils. Some universities concentrate in some fields entirely on basic research. In other fields where there are no alternatives, the universities carry out a great deal of applied research. But a distinctive feature of Finland, as was noted in Chapter V, is the development of institutions of higher education, for example at Joensuu, or Oulu, where research institutes have the special task of concentrating on the research problems of their particular region. There is in general in Finland an emphasis on the importance of current, problem-orientated research. The Finns are no more complacent about their arrangements for research than is any other OECD country. Mr. Kivistö was clear, however, that the direction of development of the partnership with the universities is the right one.

Question 24

Are the authorities convinced that the location of all teacher training (outside the vocational sector) in the universities necessarily improves classroom performance? Moreover, even when the programmes of the university summer schools and short annual meetings have been allowed for, are they satisfied with the balance between initial and in-service training? In other words, is the initial training period not too long and the amount of in-service training too limited?

Mr. Jäppinen pointed out that teacher education had been extensively reformed in Finland during the 1970s. There were two objectives—to transfer teacher education to the universities, and to reform its content. The idea first was to integrate teacher education with research, and for that reason teacher education was absorbed into the faculties in which educational research was also carried on. In the process about thirty small separate teacher training colleges were abolished. Second, there was the idea of linking theory and practice in teacher education. Practice schools were established—both comprehensive schools and upper secondary schools—in connection with the universities and their education faculties. Third, and particularly, there was the idea of raising the level of education of class teachers. To this end training was extended from a three- to a four-to-five year course leading to a degree in higher education. Fourth, and finally, the reform was intended to link pedagogical training for subject teachers to the subject itself. This meant devising collaboration with other university faculties, for example, the faculty of natural science for physics teachers.

Mr. Jäppinen reported the opinion that so far Finland has had too little in-service training of teachers. The opinion now is that teacher education should be continuing education. In-service training is at present well organised only in the case of lecturers who work within the institutions of teacher education and in the practice schools. These lecturers have sabbatical opportunities whereas the in-service training of comprehensive school and upper secondary school teachers amounts to only three days a year. Otherwise, in-service training has to take place during school holidays. As to whether the basic training period is too long and in-service training too limited, Mr. Jäppinen observed that the two should not be alternatives but complements. Now that basic teacher training has been reformed, it is expected that the 1980s will see greater emphasis on the development of in-service training.

Question 26

The two other main sectors of the education system are partially controlled by national boards. What are the advantages of the direct relationship between the universities and the Ministry of Education?

Mr. Jäppinen told the meeting that until the 1960s a small system of autonomous universities had no central administration. It was expansion which necessitated a central agency capable of implementing national policy. Thus the Ministry of Education was reformed in the mid-1960s and added to itself a Department for Higher Education and Research, as well as a new advisory expert body—the Council for Higher Education.

The first premiss of the new arrangement was that university autonomy could be reconciled with systematic national policies in higher education. The role of the

Ministry has been seen as essentially that of a co-ordinator and creator of the framework for the development of individual institutions. The principle has also been followed of a clear division between matters of higher education that require political decisions for the nation as a whole and therefore belong to the Ministry of Education, the Council of State, or Parliament, and those matters which require expertise in research and education which are properly the responsibility of the individual institutions. Following this principle, the Finns have not established a specialised central office to go between the institutions of higher education and the Ministry of Education. Such an idea has been discussed at various times, but has not received much support. The opinion is held that such an office would tend to drive decision making towards the centre and away from the individual institutions, reducing their autonomy. Moreover, the planning and control of institutions would thereby become more detailed, and administration more bureaucratic and clumsy. On the other hand, the establishment of a central office, it has been argued, could ease the administrative burden of the Ministry of Education by preventing a concentration of issues at the ministerial level. Moreover, the institutions of higher education could perhaps obtain more detailed planning assistance from a central office than is available under the current arrangements.

However, the present system, without a central office, has survived, and is held to have more advantages than disadvantages. It is believed to safeguard institutional autonomy. The Council for Higher Education enables expertise to be brought to bear from the institutions of higher education to the Ministry. The institutions can deal directly with political decision makers without administrative intermediaries. The Ministry of Education can, by direct contact, familiarise itself with the realities of research and teaching in the universities. The direct relationship between the Ministry and the individual institutions enables national policy to be carried out on a collaborative basis, with the minimum of bureaucracy and the maximum speed.

Question 27

Is it the intention that there should be one university in Finland or seventeen fully autonomous universities each responding to regional needs?

The Finnish Delegation's answer was essentially that the present structure, developed during the expansion of the 1960s and the early 1970s, gives higher education a balance between metropolis and province, and a national network serving both national and regional needs.

The broad aim of regional equality is not only defined in terms of equality of opportunity. It also involves the idea of an equal distribution of research services. In answering Question 27 *Mr. Jäppinen* echoed the examiners' view of the importance of the link between teaching and research in higher education in the context of regional development. The task of the new institutions was not only to meet the educational needs of their respective regions, but also their research requirements. The new universities were expected to have economic and cultural impact, as well as educational effects, on regional development.

The Finns take pride in having achieved a nationwide system of higher education consisting of seventeen autonomous scientific universities. They have no intention of establishing new universities. Instead, they propose to develop the institutions which have already been founded. They are satisfied with the framework they have created as a service to both higher education and research, and in many cases as excellent centres for specialised research and teaching. Though no formal distinction is made between national and regional universities, the differences are well recognised. The age and status of the older universities gives them a clear lead in certain fields of science. On the other hand, however, some new universities have developed new lines of research and teaching which have attained national recognition quickly. Moreover, some new universities have made a conspicuous impact on the research problems of their regions.

Question 28

How satisfied are the authorities with the contribution of the universities to research and development? Do they provide a good evaluation of the process of social and technological change? Do they have the right outlook? Is post-graduate education making a co-ordinated and fruitful contribution to the generation of knowledge?

No separate and direct answer was given to this question. The answers to Questions 23-27 and Question 29 had, in effect, satisfactorily covered the Finnish response to it.

Question 29

Like nearly all other OECD countries Finnish universities appointed a great number of staff in the late sixties and early seventies, nearly all of whom have permanent tenure. At the same time, the universities will no longer expand, so that very few new posts will be established. How do the authorities propose to deal with the consequences of this situation? In particular, what plans have they for enabling brilliant young graduates to obtain university posts?

In reply ***Mr. Jäppinen*** and his colleagues both acknowledged the problem and saw it as one not peculiar to Finland. In Finland, as elsewhere, there was rapid expansion in university staffs in the 1960s and early 1970s, whereas during the 1980s there will be only a few hundred vacancies for people with doctoral qualifications, whilst there is no corresponding slowdown in the numbers completing these qualifications. The Finns therefore anticipate that there will be difficulty for newly-qualified holders of the highest degrees to obtain employment commensurate with the qualifications.

As Mr. Jäppinen put it, past experience demonstrates that the strongest pressure for employment of those who have post-graduate degrees is directed toward the posts of graduate assistants which orginally are the posts established for further research training. The occupants of these posts are increasingly holders of Ph.D.s who, during the period of expansion, might have become professors or associate professors. For many of these doctors, the post of assistant becomes a permanent job, because it is often difficult to find employment elsewhere in society. When these holders of post-graduate degrees occupy these posts, they simultaneously prevent young researchers from obtaining access to a research career.

A study carried out by the Academy of Finland showed that, in the University of Helsinki between 1975 and 1979, the proportion of research assistants with a post-graduate degree increased from 48 to 61 per cent, and the average age of these incumbents rose from 32 to 34 years. Moreover, in the same period, the rate of turnover fell from 15 to 9 per cent.

The ageing of staff members of institutions of higher education is seen by the Finns as part of a general demographic trend which is unlikely to be reversed without decisive changes in the general economic situation. Meantime, however, there has been discussion of temporary solutions including measures to speed up the removal of older teaching staff, to transfer young persons to research careers, or to laboratories in the private sector.

VI

CONTINUING AND RECURRENT EDUCATION

The meeting turned finally to a series of questions concerning the relation between education and work within the context of the general OECD interest in continuing and recurrent education. These questions were intended to set the stage for an overall appraisal of the various strands of policy in Finnish educational expansion—the structure of selective opportunities and the transition from school into work.

Question 30

Are the authorities monitoring the academic success of the individuals choosing different routes through the education system, as well as their success in finding employment?

Mr. Jäppinen began to answer this question first by noticing the small entry to higher education through vocational schooling, though, as had been noted, the present 5 per cent contribution is intended to rise to 25 per cent. Monitoring of success among those entering higher education from a vocational background has shown that such students have generally speaking done rather well, especially those who have entered after completing institute-level vocational education in engineering and technology, commerce and trade, or public health. Less success has been achieved by those who have entered courses of study requiring theoretical or methodological preparedness and language skills. Some vocational courses of education had not included sufficient mathematics or language study. Recruits to higher education after vocational education were thought to be among the more highly motivated. And they have also been fairly severely selected.

The studies also indicate that 10-25 per cent of vocational education students plan to continue their education in a university at some future time. Those who have come via this route have had little difficulty in the graduate labour market. They have both theoretical education and practical experience, and are thus attractive employees.

Question 31

Few other Ministries of Education among OECD countries directly control such a vast area of vocational and educational training. What are seen to be the benefits of such extensive control? Are the authorities satisfied that the existing consultative machinery for the participation of employers, trade unions and interest groups is adequate and functional? Does it contribute to the formulation of coherent and comprehensive manpower policies not only at the national but at the local levels as well?

This question was answered by ***Mr. Numminen*** who pointed out that the administration of vocational education used to be divided between several ministries, with disadvantages which led at the beginning of the 1970s to the creation of a National Board of Vocational Education under the Ministry of Education. But the Ministry of Education does not directly control vocational education. The National Board is responsible for content and standards of teaching, being served by civil servants with the necessary expertise. The Ministry itself is confined to general policy issues. It looks after coordination between general education and a vocationally-diversified training system with the following advantages:

a) the quantitative and qualitative development of vocational education in various fields and on various levels;
b) appropriate and even regional development;
c) the saving of staff resources;
d) the avoidance of segregated forms of education;
e) the coordination of training with labour demand within the framework of the statutory right of all young people to be offered vocational education.

The National Board of Vocational Education is assisted by an expert body—the Advisory Council—through which employers, employees, and other interests participate in the governance of the system. The criticism is made, however, that this body tends to enter at too late a stage in decision-making.

Nevertheless, *Mr. Käkelä* gave the opinion that, in a small country like Finland, the concentration of the administration of general education and vocationally-diversified education under the Ministry of Education is an appropriate arrangement. He stressed the importance of securing the participation of employers' organisations, trade unions, and of the other ministries directly responsible for economic activity.

Question 32

In the OECD report on Manpower Policy of 1977 it was stated: "There is a strong case in Finland for shaping the education system to meet the differentiated needs of both young people and adults; it should not be designed primarily for the formal education of young people". Do the authorities consider that their present policies conform with this aspiration? Are plans for the development of a system of continuing education system proceeding rapidly enough?

Mr. Käkelä also answered this question, starting from the principles laid down for the development of adult education by the Council of State in 1978. A general plan for further development of adult education was prepared in 1980 on the basis of which the Ministry of Education has appointed several *ad hoc* committees to carry out specialised planning. Progress will be in two stages. The first stage of general planning will be complete by the end of 1983, and the more detailed second stage will go on for the rest of the decade. During the first stage new approaches to planning will be investigated. The aim is to get new people and new groups who have been hitherto socially and educationally passive, to use adult education services constructively. In pursuing this aim the Finns see themselves as challenged to re-assess their educational goals and methods and adapting them to modern individual requirements. The aim, as he put it, was to develop new planning based on the way of life of each individual. "The creation of new planning traditions, new concepts and ways of thinking will require much time..."

Question 33

The very success in increasing the number of school graduates in the population will raise the demand for access to continuing education by other than the conventional age group. At the same time, the financial policy is to reduce costs to the individual. Are the authorities considering the likely difficulty that will emerge as the result of these two policies?

It is recognised that the development and building of adult education and the involvement of those who did not previously participate will require more resources. It is intended to make adult education services free of charge through subsidies from the State. There will be an improvement of student aid for adult students, and an *ad hoc* committee is investigating this. It is not likely that income security during the study period can be related to a system of educational leave of absence through state finance. Instead, the possibility of employers' contributions will be examined, and also the possibility of students contributing to their own costs.

Question 34

Are any special efforts being made in the lower secondary school to prepare pupils for working life? How much attention is paid to guidance and counselling and what provision is made for work experience and visits to factories and firms?

Mr. Sarjala told the meeting that the aim of the Finns is not to make young people enter working life directly after the comprehensive school, but instead to encourage all pupils to go on to vocational education. To this end the comprehensive school curriculum will include an element of work experience.

Question 35

In the light of frequent allusions to the distance between the training in vocational schools and institutes and the needs of employers, why does there appear to be such a lack of interest in the apprenticeship system?

Mr. Melametsä immediately agreed that Finland was one of the European countries in which apprenticeship plays a very limited part in the total spectrum of vocational education. There are few traditions of apprenticeship training in Finland; it is a sparsely populated country, and its enterprises have been unevenly distributed through the regions. One of the basic aims, as we have seen, of Finnish educational policy has been to produce a more acceptable regional distribution of both vocational training and industry. This aim could only be partly fulfilled through apprenticeship training. Moreover, the average size of the Finnish company is too small to incorporate permanent apprenticeship training of high standard. Enterprises have not shown much interest in apprenticeship schemes. The State pays the enterprises training assistance and employment subsidies for apprentices to the extent that the cost to the State has been much the same as the cost of vocational institutions. Finally, apprenticeship openings have fluctuated with booms and slumps in the economy. In recent years endeavours have been made to alleviate youth unemployment caused by economic recession by increasing the number of places in vocational education. But again, for this purpose, apprenticeship training is not well suited.

Mr. Melametsä reminded the meeting that the legislation on the development of secondary education included among its aims that of opening educational channels from vocational education to higher education. The attainment of this aim presupposes teaching of general and theoretical subjects—a task which is difficult in apprenticeship training. Throughout Finnish educational history, formal education has always had high status. We have seen the high prestige of the upper secondary school. Attitudes to apprenticeship in Finland, though they vary, reflect the traditional status order.

Question 36

What are the plans for the participation of private and/or voluntary sponsors in Finnish education? Are the authorities considering important roles for such agencies, particularly in the adult sector of continuing education?

The answer, which came from *Mr. Jäppinen*, consisted first of the flat assertion that the first principle of Finnish educational policy was to offer young people an education corresponding to their abilities and preferences, regardless of the status or income of their parents. Free state education run by the municipalities is the obvious consequence, and the comprehensive school marks the realisation of an educational ideal. Secondary education maintained by the municipality or the State is free of charge. Transportation and meals are supported by the State and offered to students at moderate prices.

Nevertheless, there are some private secondary educational institutions which are mainly maintained by industry or business. In these schools the proprietors of the business finance part of the cost, and in some cases fees are charged. All universities, however, are state owned, the last private ones disappeared in 1981, and all higher education is free of charge. There are no plans either to reinforce or to restrict the role of the private sponsor in formal education.

In adult education the situation is not quite so clear. The strict principle of free education has only been applied to formal schooling, although the future aim is to make as much as possible of adult education free of charge. At present the main responsibility for adult education lies with the State, although private sponsors participate to some degree. There is also the aim that employers should share financial responsibility. At present the right to take educational leave of absence, which is prescribed by law, is restricted because the question of how to finance wages or salaries for adult students has not been settled. One possibility which has been considered is to divide financial responsibility between the State, employers, and the students themselves.

Question 37

Are the authorities persuaded that the full "educational" and "cultural" potential, as distinct from "instructional" potential, of radio and television is being utilised? And, where television in its instructional mode can provide an unequalled resource for small, isolated comprehensive schools, as well as a resource of common instruction in widely spread upper secondary and technical schools, have teachers been provided with sufficient opportunities to learn how to incorporate such instruction into their usual activities?

Mr. Aho replied that attempts had been made to increase co-operation between the Finnish Broadcasting Company and the school authorities so that radio and television could be better utilised for teaching purposes. The Finnish policy has been to maintain a sufficiently-dense network of schools, and not to replace the schools with forms of education "at a distance". The radio and the television can be useful teaching tools, but they cannot fully replace a teacher. There is a strong Finnish preference for close relations between teachers and pupils in an active school.

Part Three

EDUCATIONAL POLICY IN FINLAND

Summary of the Background Report
prepared by
the Finnish Ministry of Education

I

BACKGROUND

One-third of Finland's surface area of 337 000 km^2 lies above the Arctic Circle. More than 93 per cent of the population of this North European country speak Finnish, but 6.5 per cent are Swedish-speaking. For the past five years the population has increased by about 0.5 per cent per year and is currently 4 800 000. There is likely to be a decline in population by the 1990s at the latest. The age structure of the Finnish population is younger than in most European countries, but the number of young people under 15 is expected to fall sharply, whereas the number of those over 65 will rise fast. Nevertheless, the age structure will still be younger than in the other Nordic countries. The number of people of working age will go on rising until the end of the 1980s, the group aged 45-64 growing most rapidly. This growth is however expected to slow down appreciably. Emigration is another important demographic factor that has to be taken into account in formulating education policy in Finland; at present one Finn in ten is born in Sweden.

Life in Finland has changed considerably since World War II. The proportion of people employed in agriculture and forestry has fallen from 45 per cent in the late 1950s to 11 per cent today. Currently 34 per cent of Finns work in the secondary sector and 52 per cent in the tertiary sector, and the unemployment rate is estimated at 4.5 per cent for the country as a whole. Alongside the rapid growth of the Finnish economy evidenced by these figures there have been large-scale changes in the geographical distribution of the population. Most regions now have fewer inhabitants, and only in Uusimaa and some other parts of Southern Finland has there been net growth. However, population development now seems to have stabilised. Some 60 per cent of the country's inhabitants live in urban areas. The population of Helsinki, the capital, is 484 000.

II

THE DEVELOPMENT AND OBJECTIVES OF EDUCATIONAL POLICY

In Finland, educational policies are developed as an integral part of overall social policies. Certain primary objectives are generally accepted:

- promotion of educational and social equality;
- teaching of the knowledge and skills required to keep pace with developments in production;
- educating citizens to be both able and willing to participate actively in a continually changing society and in building democracy;
- promotion of cultural activities.

To achieve these goals, Finland has adopted the common-to-all, comprehensive school system where the entire age group receives, free of charge, a nine-year basic education with a unified curriculum.

A large-scale reform is at present under way to fit the second cycle of secondary education into the new structures. The purpose is to replace the present system of general upper secondary education and fragmented vocational education by integrated secondary schooling. In future all students at vocational institutions will study together the first year before continuing their studies on specialised lines. This means that in the years to come vocational education will be considerably developed. Students who choose this channel will have easier access to higher education, which will put more emphasis on vocational aspects. In addition, in compliance with the 1978 Act on the development of secondary education, every student who completes his compulsory or secondary schooling will be offered the possibility of vocational education in an institution of secondary or higher education. This implies that secondary vocational schooling will have to be strongly expanded; the expected decline in the size of future age groups will make this easier.

The Finnish educational system has experienced a strongly expansionary phase during the last two decades. The average length of education among the population over 15 years of age has increased by slightly over two years. This trend has given added importance to the role of education, and continuous evaluation of the educational system will be vital to Finnish society.

III

EDUCATIONAL ADMINISTRATION

Central, regional and local administration

Public administration in Finland is organised at central, regional and local levels. *Central educational administration* is the responsibility of the Ministry of Education, the National Board of General Education and the National Board of Vocational Education. The Ministry is responsible for the implementation of laws, decrees and general government policy concerning education, and also for the institutions involved and for planning the future. The two National Boards look after questions of national interest such as curricula and pedagogical methods, each in its own field of competence. It is of interest to note that institutions of higher education come directly under the supervision of the Ministry of Education. The Ministry has six departments.

- — General Department;
- — School Department;
- — Department for Higher Education and Research;
- — Arts Department;
- — Sports and Youth Department;
- — Department for International Relations.

The School Department is responsible for general, vocational and adult education. It is assisted by a permanent advisory expert body, the Council for School Affairs, which is composed of representatives of the central educational administration, employees' organisations, municipalities, and those engaged in educational research. The Ministry also has at its disposal another expert body, the Advisory Council for Secondary Education Reform.

Regional administration in Finland is the responsibility of 11 provincial governments under the authority of the Ministry of the Interior and its central offices. Each provincial government has a School Department whose main task is to organise general and adult education. The provincial governments also have certain planning tasks related to vocational education, but in administrative matters vocational institutions come directly under the authority of the National Board of Vocational Education.

Regional administration bodies in Finland have no decision-making power. However, planning and advisory bodies were set up to aid provincial governments in implementing the extensive school reform which culminated in the present comprehensive school system. Similar bodies were established to plan application of the secondary education reform. The task of the Advisory Council for Secondary Education Reform is to assist provincial governments in preparing the execution of this reform, to make proposals and to submit statements to the authorities on questions related to the development of secondary education.

Local administration is the responsibility of the municipalities which are, to a certain extent, self-governing, since they are run by elected representatives and have the right to levy taxes. Each Municipal Council elects members to a School Board; at least two of these members must be teachers. The School Board directs and supervises the instruction given in municipal schools. There is also a School Council in each comprehensive school. While most of the members are appointed by the Municipal Council from among parents and teachers, during their last three years at school the pupils themselves elect their own representatives to this body. Each upper secondary school is run by its own Board of Directors, unless the Municipal School Board itself takes on this task. Vocational institutions also have their own Boards of Directors. In all schools it is the Head who is responsible for the immediate administration of his/her school. In upper secondary schools there are Parents' Councils which, together with the School Councils of the comprehensive schools, are primarily responsible for the maintenance of liaison between schools and families.

As a result of the strong drive toward more democratisation in the early 1970s, internal administrative bodies known as School Councils were set up in upper secondary schools and vocational institutions. The members are elected yearly, pupils and teachers being represented in equal numbers. The Council's primary task is to develop the school's planning and in general promote its action.

Planning

The Ministry of Education, the two National Boards and the institutions of higher education draw up and implement five-year plans which are reviewed annually, decisions on practical implementation being taken in line with the State budget. Alongside this, the provincial governments prepare development plans, on the basis of which the Ministry of Education draws up its own medium-term regional development plan. Because of the reform of secondary education, it has, in addition, been necessary to introduce a series of projects to be carried out over a fixed number of years. Educational planning has also become a part of municipalities' overall planning.

Finance

The State, the municipalities and certain private sources participate in the financing of education. About 18 per cent of the State budget is reserved for education and culture. Compulsory education, entirely financed by the State and the municipalities, accounts for slightly over half of Finland's educational spending, in spite of the decrease in the size of the relevant age groups. There has been a slight rise in expenditures on adult education and those on upper secondary school have also increased due to higher enrolments. The share of the budget earmarked for higher education, however, has declined somewhat, since the number of students will no longer increase.

Comprehensive schools, like most upper secondary schools, are municipal institutions; for the former the State pays, on average, 70 per cent of operating costs, and for the latter up to 85 per cent. About half the vocational institutions belong to municipalities or associations of municipalities; 30 per cent are owned by the State, and 20 per cent by private bodies. The State covers, on average, 75 per cent of operating expenses.

Pre-school education

Finland has no schools for children under 7, although since the beginning of the 1970s a pre-school experiment has been under way in collaboration with the comprehensive schools. There are, however, day-care centres which provide education for 6-year-olds. An Act passed in 1973 stipulates that day-care centres should prepare the way for children's education and provide continuous care during that part of the day when it is needed. Day care is not part of the school system, but comes under the direction and supervision of the social welfare authorities. It is, however, recognised that day-care centres should prepare children for school life. Day-care and day nursery requirements increased considerably during the 1970s, and centres now cater for 120 000 children. Municipalities report that altogether over 250 000 places are needed. To supplement the facilities available at present, a nationwide plan for kindergartens is being prepared.

IV

COMPREHENSIVE SCHOOL - THE REFORM

Background of the reform

Before the reform, Finland had a parallel school system. The first four years of primary school, the basis of the system, were common to all pupils; after that some children went on to a "gymnasium", while the others continued their studies at primary school. At the gymnasium, studies were divided into two cycles—a five-year lower secondary school and a three-year upper secondary school which gave access to the university. At the end of the 1950s primary education was extended to eight years—six at primary school proper and two at civic school. Later, certain municipalities introduced a third, optional year. Municipalities were responsible for primary schools and for some lower secondary schools set up towards the end of the 1940s, particularly in remote rural areas. "Gymnasia" were the responsibility of the State or the private sector.

This parallel system was based on the idea that the future occupations of the pupils could be divided roughly into those requiring practical skills and those requiring theoretical knowledge. It was also assumed that pupils could be divided in a similar way, according to their capabilities. However, changes in the country's working life, technological developments and increasing international co-operation all combined to change the basic overall knowledge each citizen needs. Basic education no longer met the requirements of society. At the same time, the system was itself undergoing profound change. Between 1950 and 1960 the proportion of pupils who went on to lower secondary school rose from 20 to 60 per cent, and the primary school curriculum was increasingly aligned on that of secondary education.

After weighing a number of alternatives, a nine-year comprehensive school system was adopted as the basis for the reform, the school having two cycles of six and three years respectively. The main difficulty was to establish a unified syllabus suitable for all children, whatever their aptitudes. Finally, it was decided to make the curriculum of the six-year lower level the same for everyone, and to leave pupils at the upper level some freedom of choice. In the second cycle, for some subjects the syllabus is the same for all; for others, courses are divided into different requirement levels; others again are optional.

Comprehensive school administration

In 1968 Parliament approved the Act concerning the new school system and the reform was implemented from 1972 to 1977. In accordance with the wishes expressed by Parliament, the reforms started in Northern and Eastern Finland, disadvantaged areas which had been left behind educationally. The year in which each municipality was to switch to the new system was decided by the Council of State. Prior to the change-over, municipalities had to prepare their own plan for the transition which, if approved by the National Board of General Education, was then put into effect.

Instruction during the first cycle of the new system is given by teachers who have general pedagogical training, and the same teacher can teach all subjects. Instruction during the second cycle is given by teachers specialising in one or two subjects. Specialist teachers and study counsellors are all qualified teachers with, in addition, an extra year's training.

School begins at age 7 and attendance is compulsory for all children between 7 and 16 years of age. Only in exceptional cases may a child attend a comprehensive school in any district other than his own. Children may be punished for truancy or bad behaviour, and their parents are held responsible. Girls and boys have equal status.

The school year runs from about 15 August to the end of May. Schools are open 190 days a year, five days a week. Children are given a school report with their marks at the end of each term.

Education is free. The school provides all pupils with textbooks and a daily meal. School transport is provided and in some cases boarding accommodation is also available since Finland is a sparsely populated country and some children have to travel very long distances.

Municipalities are responsible for the upkeep of comprehensive schools, but they receive a great deal of support from the State in the form of subsidies which vary according to their resources. On average, state aid covers about 70 per cent of costs, but may be as high as 90 per cent.

Instruction

Since attendance is compulsory, the comprehensive school must provide the general, basic education its pupils will need to live and work in Finnish society. It has to take account of each child's family and social background and also of individual differences between pupils, which are sometimes considerable. While the first cycle syllabus is the same for all, the second cycle offers a choice of subjects and of levels. This choice is usually made by the parents on the school's recommendation. If necessary, the pupil may change from one section to another during the school year. Selection of a certain level in one subject does not affect the pupil's choice in another. This selection systems means that children can be taught in homogeneous groups. The maximum number of pupils in a class is, moreover, limited to 32. To be admitted to an upper secondary school or certain vocational institutions, a pupil must have completed the medium level course. Completion of only the lowest level gives access only to basic vocational education. This differentiated structure means that selection has to take place at the end of the 6th year, and the weaker performers cannot accede to higher educational levels. For this reason, the authorities are trying to reorganise the grouping of pupils in a more rational manner. Similarly, the intention is that the first year of vocational education should have the same syllabus for all pupils, but in order to achieve this goal each pupil must be able to reach the minimum level required for eligibility, whatever the diversity and complexity of language and mathematics courses.

The needs of Swedish-speaking school children are taken fully into account. Swedish-speaking schools and educational institutions are maintained at all levels, and the teaching there is based on the same principles as in Finnish-speaking institutions.

The fact that Finland is a bilingual country makes language teaching especially difficult. Pupils have the right to go to either a Finnish-speaking or a Swedish-speaking comprehensive school. Because of the close co-operation between the Nordic countries, pupils have to learn both languages, but they must also learn a non-Nordic language as well. Instruction in the first foreign language—almost always English—starts in the third year of comprehensive school. In the seventh year, pupils begin learning the other national language. In the eighth and ninth years, they may learn a third language and, in some cases, Latin.

A major characteristic of the Finnish school system is the large number of small schools. This is due to the country's low population density. Classes are often very small, and sometimes children who are in different school years may study the same topic at the same time. In this situation the pupils' own initiative and active participation is encouraged as much as possible.

The Comprehensive School Decree lays down the broad lines to be followed by teaching staff who are required, among other things, to maintain good relations between school and families, to promote the favourable development of the pupil's whole personality, and to develop and use teaching methods adaptable to varying instructional situations.

Special education

Special or transitional classes are provided for children who have not adjusted to comprehensive school. A transitional class must have no more than 10 pupils.

Finland has special legislation providing for educational institutions for deaf and blind children. In addition, there are also some municipal schools for children with hearing defects or who are visually handicapped.

There are also special schools for children who have fallen behind in their mental development and the educable mentally retarded. The special school teaches the same subjects as the comprehensive school, but adjusts them to the learning capacity of its pupils. The maximum size of a study group is 15 pupils.

Education for special social categories

Finland has about 6 000 gypsies. Because of their way of life, their school attendance is very uncertain and only a few of them go beyond comprehensive school. At the end of the 1970s, the Advisory Council for Gypsy Affairs prepared a plan of action to encourage gypsies to send more children to comprehensive school and to take advantage of day-care facilities. Teachers and other children were also encouraged to show more understanding of the gypsy child's life style.

There are about 4 500 Sami in Finland, living in the northernmost part of the country, in Lapland; only a few dozen children are born to them each year. The sames rules apply to their schooling as to that of other Finnish children. Lately, however, special efforts have been made to encourage the Sami language and culture by including special programmes in the school curriculum; the objective is to make the children bilingual. It is also intended to introduce school radio programmes for Sami children.

Finland has to cater for one other special category—the school-age Finnish children who return to Finland from Sweden and often have only a very sketchy knowledge of Finnish. About 25 to 30 per cent of them start their schooling in Finland in the Swedish-speaking schools; some of them remain there, while others later transfer to Finnish-speaking schools. The numbers who go to vocational and upper secondary schools are so small that it is difficult to make arrangements for them as a group. The National Board of General Education has published a pamphlet for the use of teachers, containing guidelines for the education of these children.

V

SECONDARY EDUCATION

The concept of secondary education

In Finland, two branches of the educational system are defined as "secondary":

1. Institutions of a level corresponding to what in most countries would be regarded as 2nd cycle secondary education.
2. All institutions of vocational education providing either basic education or specialised training (for example, training in engineering and nursing are regarded in Finland as secondary education) which in other countries would be thought of as belonging in the sphere of higher education or would be given in specialised institutions.

Thus it must be borne in mind that the Finnish concept of secondary education differs a great deal from that of other countries.

Upper secondary schools (second cycle)

These schools serve as a bridge between comprehensive school and university. The curriculum, which is based on general education subjects, covers three years and prepares pupils for higher education. Some subjects are compulsory, others are optional. The school timetable is organised in the same way as in the comprehensive school. At the end of the three-year course pupils take the matriculation examination; only those who pass this examination may go on to university or to other institutions of higher education. Teachers usually specialise in not more than one or two subjects. They are trained at institutions of higher education.

Although their numbers have fallen slightly during the past ten years, upper secondary schools developed rapidly in the 1950s and 1960s. In 1979-1980 there were 462 of them, as against 194 in 1950. Because population density is low, most of them are very small and for this reason often have only one to three classes at each age level. Enrolment has risen sharply, with nearly half each 16-year-old age group choosing to study at upper secondary school. There are more girls than boys at these schools, because of the schooling channel choices the girls make at comprehensive school. Because attendance at upper secondary school has become more common, a larger number of pupils pass the matriculation examination. The higher education institutions cannot take them all, so the majority enter institutions of vocational education. The upper secondary schools are popular partly because of the prestige traditionally associated with them in the eyes of both pupils and the public at large. But it is above all due to the fact that these schools still provide the sole educational channel leading to university and that completion of upper secondary school studies also opens the door to vocational education institutions at all levels.

Upper secondary education is not free of charge. Fees at municipal schools are higher than those at state schools, and private schools may be much more

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expensive. There are however concessions for families with low incomes. Upper secondary school students must also pay for transport and for school meals or board and accommodation where necessary. However, many municipalities assist in meeting these costs. Municipal and private upper secondary schools receive state aid covering between 51-86 per cent of operating costs.

Vocational education

Vocational education is almost entirely under the supervision of the National Board of Vocational Education, which is responsible for the institutions attended by over 95 per cent of all students who choose this channel. The Ministry of Education is responsible for arts and music teaching, and the National Board of General Education for the training of physical education instructors. Vocational education in certain other fields comes under the authority of the relevant ministries. For instance, the training of police and customs officers, railway staff, etc., is the responsibility of the ministry concerned. Whatever national body may be responsible, 35 per cent of students study at state institutions and 51 per cent at institutions run by municipalities or municipal associations, while 14 per cent attend schools owned by the private sector. The direct administration of individual institutions varies according to their ownership. Nearly all of them, however, have an administrative council or board of directors appointed by the owners. Sometimes a body on which teachers and students are represented may also be involved to some extent.

Vocational education institutions aim to provide training for the job chosen so as to enable the student, once he has spent some time in working life, to reach the level of skill and competence required. In certain fields, such as health care, requirements are from the start more stringent.

The courses available may be roughly divided under four headings:

- general education subjects;
- general vocational education subjects;
- specialised vocational education;
- work practice (application of knowledge). Sometimes students are given on-the-job training in a firm.

The share of each of these four types in an individual's training programme varies considerably according to requirements. Owing to diversification of the labour market there are currently about 650 possible courses. The length of studies and the length of the school year vary according to the type of training and its level. School-level vocational education lasts between one and three years, and institute level training between two and four years.

Enrolment in vocational education has greatly increased, from under 30 000 in 1950 to nearly 140 000 today. There is a centralised co-selection system on a regional basis; in order to save the student from having to apply to several schools and the schools from having unfilled places. The student makes a single application which is checked and sent on to the appropriate institution. Each institution then makes its final choice. The system does not reduce the student's range of choice, since the same application can be transferred to institutions outside the region in which he or she lives. Experience has shown that this method generally works well.

Teaching staff activities and qualifications vary a great deal from one institution to another, and in view of the diversity of subjects and levels teacher training also varies widely. In most instances pedagogical training is compulsory and is given after a university degree or vocational diploma has been obtained. In 1978 there were 13 000 vocational education teachers in Finland, 3 500 of them part-time.

In some cases vocational education is entirely free of charge. Fees at state-owned schools are generally low, whereas at private or municipal institutions they are often much higher. Many institutions provide accommodation for only a nominal fee and most of them provide one meal a day at varying charges. In developing areas travel costs may be subsidised for students who live more than 5 kms. away. In 1978, 50 per cent of students received loans, 73 per cent the basic student grant and 14 per cent an accommodation allowance. 75 per cent of municipally and privately-owned institutions' operating costs are met by the State.

Goals of the reform

With the reform introducing comprehensive schools, upper secondary and vocational curricula in turn had to be adjusted so as to follow the new system effectively. They also had to be brought into line with the ever-changing demands of the labour market so as to provide young people with a better preparation for working life and to promote equal opportunity in education. These were the considerations underlying the decision to reform secondary education.

The great popularity of upper secondary schooling is a source of inequalities, since students who have followed this channel tend to take all the places in university and vocational institutes, blocking the way to higher education for those from vocational schools. It was therefore decided to develop vocational education so as to make it more attractive to young people. In this way, without limiting young people's educational opportunities by reducing enrolment at upper secondary schools, the door of higher education will remain open to all. Moreover, as modern technology calls for qualified staff at all levels whose general education enables them to adapt to technological change, it seemed natural to give priority to vocational education.

Increasing the attractiveness of vocational education involves a review of the entire educational system. First of all, the performance level of the comprehensive school will have to be raised so that the entire age group can have access to one or other of the two secondary education channels. This measure will bring a better balance in the levels of students in the two channels. In particular, vocational education will have to provide a better preparation for going on to higher education. At the same time some vocational elements will have to be introduced into the upper secondary school curriculum to make it easier for students to switch from one channel to the other. Lastly, higher education will have to be adapted so that students from vocational schools educated under the new system can have access to it. All these measures will help to create a more equitable educational system and at the same time give preference to vocational over upper secondary education, reducing the latter's prestige and its attractiveness to students. The Council of State approved these reforms, in principle, in May 1974 and extensive preparation for carrying them out was begun.

Upper secondary school syllabus reform

The Curriculum Reform Decree was promulgated in 1980 and from 1982 onward the reform will be implemented in secondary schools. It is intended to remedy the defects of the present system, i.e. that:

- practical and technical subjects and those relating to working life are largely absent;
- the choice of subjects is too limited;
- the syllabus is too heavily biased in favour of languages, especially foreign languages;

- not enough time is given to science subjects, which are almost always optional;
- the teaching of the arts is neglected;
- the share of behavioural sciences and human relations is too small.

The reform will introduce the following major changes:

- teaching in the mother tongue will be developed;
- the second foreign language will become optional for students who choose a syllabus where mathematics predominate;
- physics, chemistry and geography will be compulsory subjects;
- more time will be given to art education (the pictorial arts, music and self-expression);
- educational support services will be introduced (student counselling, etc.);
- instruction in technology and practical work will be introduced in connection with physics, history, social sciences, etc.;
- the share of optional subjects will be increased, especially in the third year.

Vocational education reform

There is at present insufficient co-ordination between the two levels of vocational education—school and "institute". Pupils from upper secondary schools take the lion's share of the places available in the institutes, and this makes it extremely difficult for pupils from the vocational schools to accede to higher-level studies. Moreover, curricula at school and institute levels of the same training fields are not linked with each other and studies at the institute are not the logical continuation of the school curriculum. To remedy these structural problems the reform provides that the institutes must ensure places for pupils from vocational schools, while at the same time all institutions are to change their general and specialised curricula in such a way that each student's training may be consistent and follow a logical sequence from beginning to end.

Implementation of the reform will mean the establishment of 24 "basic lines" which together will include a total of 222 "specialisation lines". There will, in addition, be 21 separate lines which because of their special nature cannot be fitted into the 24 basics, e.g. training as hairdresser, jeweller, etc. Alongside these there will be 129 parallel study lines for students from the upper secondary schools going on to vocational education.

Each of the 24 basic lines will correspond to a particular field such as, for instance, agriculture, mechanical engineering, commerce and administration, etc. During the first year the general curriculum for each basic line will be common to all students, whether they attend a school or an institute. After this first year, each student will follow a specialisation line which will in no case involve less than one year's further study, so that the minimum period of vocational education will be two years. School-level vocational education will last two to three years, institute-level studies three to five years. The opening of vocational educational channels to higher education means an increase in the general education content at all levels, but especially at institutes. By the end of his vocational education each student will have enough training to be able to go straight into the labour market.

VI

HIGHER EDUCATION

Background

As in most other Western countries, higher education in Finland expanded rapidly from the late 1950s on. The number of students increased sharply, from 23 600 in 1960 to 74 600 in 1977. It was in the humanities and the social sciences that the increase in enrolment was most marked. In 1965, the President of the Republic appointed a working group whose task was to raise standards of research and higher education in Finland so as to make it competitive at international level. This was followed in 1966 by an Act which set a number of targets to be achieved by 1981 (later put back to 1986) and quantitative norms for student enrolment, facilities in higher education and the number of teachers in the four main fields of science. The Act substantially increased the resources allocated to scientific and technical education. It had far-reaching effects, making long-term planning possible and endowing higher education with the resources it needed, regardless of economic fluctuations. The Act also introduced many reforms in administration and in the degree system, and led to the creation of several new universities in the provinces.

Administration

Today all institutions of higher education come under the authority of the Ministry of Education, notably, the Department for Higher Education and Research and the Arts Department. While each institution is responsible for its own organisation, the Department for Higher Education and Research is in charge of planning at national level as concerns enrolment, syllabus, degree courses, administration, etc. However, the Ministry's national plans are usually based on the proposals of the institutions, so that the Ministry's role is that of a co-ordinator. The Arts Department is responsible for three institutions of higher education in the arts. A number of Advisory Councils work in collaboration with the Ministry of Education and the Council of State, preparing statements on policy issues and putting forward proposals for the development of higher education. These bodies are the Science Policy Council, the Council for Higher Education and the Council for Teacher Education.

Finland today has 17 universities, three institutions of higher education in the arts and a school of social sciences and local administration. Total student enrolment is 82 000 and there is a teaching staff of 5 600, 1 100 of them part-time (this figure does not include arts teachers). Professors with their own Chair, whose primary responsibility is research, make up 14 per cent of total teaching staff, which is distributed as follows: 36 per cent in the humanities and social sciences, 28 per cent in the natural sciences, 18 per cent in engineering and technology and 18 per cent in medicine.

The State is responsible for most of the financing of higher education. The Ministry of Education supervises the utilisation of funds by the institutions and makes annual budget proposals to the Council of State. The Development Act for Higher Education stipulates that the State must pay for the upkeep of buildings and for staff remuneration; appropriations for other expenditures, however, vary according to the overall State budget situation each year. Today expenditures on higher education account for 13 per cent of the Ministry's budget and 2.2 per cent of the total State budget; these percentages have fallen sharply since the mid-1970s. However, up to the mid-1980s budgetary allocations should increase at an annual rate of 10 per cent because the authorities wish to improve overall conditions for education and research.

Distribution of students and resources by subjects

The rapid expansion of higher education in the 1960s soon brought serious difficulties. The disproportionate number of students in the humanities and social sciences led to overcrowded lectures, high drop-out rates, too many graduates chasing too few jobs, and insufficient resources. In an effort to put the situation right, the Act on the Development of Higher Education was passed in 1966. Its objectives were to bring student enrolment in the various disciplines into line with labour market requirements and to create the right conditions for long-term resource planning, taking into account the needs of the different fields. The latter objective has not yet been achieved, partly for budgetary reasons but also because of inadequate assessment of specific needs in the various disciplines. The Council of State requested the Ministry of Education to study resource requirements and to make proposals on the basis of its study. The first objective (redistribution of student enrolment in line with labour market requirements) was, however, achieved. The numbers of young people studying the humanities and social sciences have fallen substantially, while enrolment in the natural sciences, engineering and technology and medicine has correspondingly increased. Present forecasts, however, indicate that some students—particularly those with training in engineering and technology, the natural sciences, the humanities and education—will have difficulty in finding work in the coming years. For this reason, the authorities plan to expand post-graduate and supplementary education and to encourage larger numbers of graduates to take advantage of these opportunities.

At present the distribution of students in higher education is as follows: arts and humanities, 17 per cent; economics and business administration, law, social sciences, 27 per cent; education and theology, 14 per cent; natural sciences, agriculture and forestry, physical education, 18 per cent; technology, 16 per cent; medicine and paramedical training, 8 per cent. About half the students in higher education are women, but only a small percentage of these continue their studies to doctorate level.

Regional development

Over the last 15 years the Finnish authorities have made continuing efforts to even out regional differences in all respects, and it is in the field of higher education that they have been most successful. As late as the 1950s, higher education was still concentrated in the two largest cities of Southern Finland—Helsinki, the capital, and Turku, the traditional centre of education and culture. Since then, several institutions of higher education have been set up in Eastern, Western and Northern Finland.

The authorities are well pleased with the success of their regionalisation policy, since they believe that the establishment of a university can greatly benefit a region. Students from all parts of the country now have more or less the same opportunities as those from the larger cities in the south, who used to enjoy an advantage. Local labour markets expand because a trained labour force tends to settle within a university's zone of influence. Research activities are often slanted towards the solution of local problems. An institution of higher education has a stimulating effect on the cultural life of the surrounding community and, last but not least, furthers tertiary sector activities in the neighbourhood. Regionalisation of higher education has certainly had good results. For all these reasons many local authorities seek to establish or expand a university in their region, and recently several towns have even contributed to financing a Chair at their regional university.

Where higher education is concerned, Finland is divided into five districts: Helsinki, Tampere, Turku, Eastern Finland, Central Finland and Northern Finland. The authorities have made provision for the harmonious development of education in each district, with student enrolment in proportion to the total population. To co-ordinate secondary and higher education:

- the number of places to be made available at a university must be calculated in accordance with the number of pupils in secondary education in the district;
- higher education must provide a continuation of secondary education;
- throughout the whole educational system a balance must be maintained as regards the numbers of students in each discipline.

Each district will provide higher education in the humanities, social sciences, natural sciences, technology and health and social services. Particular attention will be paid to local demand for labour. Increased numbers of university places will be provided, primarily in the most disadvantaged provinces with the poorest educational opportunities, while in districts where opportunities are already good expansion will be confined to improving existing services. The Ministry of Education considers that the present number of institutions of higher education is sufficient. There are therefore no plans to create others. However, supplementary or adult education programmes are to be developed.

Degree courses

The whole degree system has recently been reformed. This was made necessary by a series of problems such as high drop-out rates, prolonged study periods, overcrowded classes, and courses that were too broad, too theoretical and too far removed from labour market requirements. Degree courses now have to meet the needs of the labour market and of society. They are broadly based so as to equip graduates to hold various types of post and take ample account of problems related to social and economic development. Generally speaking, the reform has given a more vocational and scientific slant to courses that were previously too theoretical, while those that used to be too narrowly vocational now adopt a more scientific approach. The hope thus is that today's students will be better able than their predecessors to take a more scientific and overall approach to occupational and social problems.

Since the reform the curriculum for each "basic degree" course has been planned as a coherent whole. All basic degrees, in whatever subject, are now of equal value. Studies usually last four years, divided into 160 "study weeks", each corresponding to 40 hours' work. All students go through three stages—general studies, which occupy one-quarter of the entire course; subject studies, which take up one-half of it; and "advanced studies" which account for the remaining quarter. Each course includes compulsory and optional subjects. Often a student may choose from several vocational or scientific orientations within a single discipline.

Following the reform, higher education now comprises two cycles, graduate and post-graduate. The first normally lasts four years and, leads to the award of the "basic degree". The second, post-graduate cycle has been very little affected by the reform. Its first part (the "licentiate") leads on to the second (the "doctorate"). The licentiate used to be compulsory, but it is now optional, so that doctorate studies can be started immediately once the basic degree has been obtained. For both licentiate and doctorate levels the student must not only present a thesis but must also pass his final examinations. In the past, provision for post-graduate studies in Finland was very unsatisfactory, but now the number of assistant and research posts has been increased and conditions for part-time post-graduate students working for the doctorate have been improved. It is above all the quality of post-graduate study content that is stressed, since the number of post-graduate students is, in fact, already sufficient.

As to whether the reform of higher education has been a success, opinions differ. The fact that instruction is more systematic and better programmed than before should certainly improve student motivation and reduce the drop-out rate. At the same time, however, the autonomy of institutions of higher education has been diminished. One positive point is that the shorter time required to obtain study units has led to more consistent, more interesting subject matter, better adapted to the purposes of each degree course. The fact that all degrees are now regarded as of equal value is another positive point. On the other hand, many academics argue that the reform should not have been implemented comprehensively and all at once. They feel that insufficient account was taken of the special features of each discipline and that the reform, carried out in a bureaucratic rather than an academic spirit, was over-centralised. It also seems that the stress laid on occupational considerations is ill-suited to the humanities and social sciences. These differences of opinion have created an atmosphere of distrust between the Ministry of Education and the universities. Even now, with the reform well under way, public debate is likely to continue for some time.

Supplementary education, summer universities, the open university

The institutions of higher education also provide supplementary education in which about 15 000 students take part annually. The Ministry of Education plans to double this number within the next five years. The authorities are particularly anxious to arrange special supplementary education courses for unemployed graduates.

Summer universities provide three kinds of instruction: classes at university level, vocational supplementary education courses, and courses complementing upper-secondary school education. No academic qualifications are required of the students, of whom some 40 000 attend summer universities each year.

Various forms of open university have been tried in Finland. For instance, many institutions of higher education have organised courses open to all in collaboration with the Finnish Broadcasting Company (radio and television) and other bodies concerned with adult education. The idea is rather to arrange for a new way to study than to establish a new institution for that purpose.

Research in institutions of higher education

Research is an essential part of the activities of institutions of higher education. In recent years over 60 per cent of the state research budget has been allocated to these institutions. Professors spend a great deal of their time on research, and the students' theses also make a notable contribution. Scientific research is for the most part autonomous, being based on the interests of the

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researchers themselves. Recently, however, more attention has been paid to research on important social issues. 60 per cent of the work carried out in the institutions of higher education is basic research, 30 per cent applied research and 10 per cent on product development, whereas in the business sector the order is more or less reversed. The institutions of higher education receive 70 per cent of their research funding direct from the State budget, while the Academy of Finland meets 13 per cent of their research expenditures. Other funding sources are the various ministries and the Finnish National Fund for Research and Development (SITRA).

The students

In 1978 only 2.5 per cent of the population under 65 had a university degree, but this low percentage is likely to increase rapidly during the 1980s. The total annual intake of institutions of higher education is between 12 000 and 13 000 students. To be admitted, applicants must have completed upper secondary school studies and passed, first, the matriculation examination and then the university entrance examinations, where competition is fierce, since there are many more candidates than there are places available. A few places are, however, reserved for students without the matriculation examination certificate, and in the late 1970s between 450 and 700 such students started higher education studies each year. From 1984 onwards a much larger share of places, probably some 20 per cent, will be reserved for students from the newly reformed vocational schools.

A great deal has been done to ensure balanced representation of all regions and all social classes. Whereas at the end of the 1950s only one-quarter of all students in higher education came from outside Southern Finland, the proportion has risen to 50 per cent today. Students come in increasing numbers from the provinces and rural communities of Northern and Eastern Finland. At the same time, the proportion of those from the higher social classes is diminishing. The establishment of new institutions of higher education has had a great deal to do with this equalisation of opportunity because, compared with the older universities, the new ones tend to attract more young people from rural communities and less from the more privileged classes. However, even today the cities and towns of Southern Finland, and the middle classes, are still proportionally over-represented.

Higher education is free of charge, but students have to meet their own living expenses. However, the State provides grants and guarantees bank loans to students at low interest rates so that economic difficulties need no longer be an obstacle to either higher or vocational education. Altogether, 170 000 students receive grants, and 116 000 loans, each year. The State subsidises university restaurants, and the objective over the next few years will be to raise this subsidy to cover 50 per cent of the price of a meal. Student foundations build, maintain and run student housing for 22 000 young people. Health care, too, is primarily the responsibility of a foundation managed by the students themselves. By 1986, however, it is planned to integrate student health care into municipal services.

VII

ADULT EDUCATION

In Finland there is no unified system of adult education, which has up to now been mainly concerned with general, civic and social matters and only rarely with vocational training. Now, however, there is a tendency to put more emphasis on vocational aspects. Adult education takes many forms, and in most cases the State meets between 70 and 90 per cent of the expenses incurred.

In 1978-1979 there were 270 "civic institutes" and "workers' institutes". It is they who are mainly responsible for non-vocational adult education. Their purpose is to teach adults in their spare time such knowledge and skills as are necessary in their civic life, contribute to continuing personal development and encourage self-study. In 1978-1979, 520 000 people attended classes. These institutes do not deliver any kinds of certificate.

The "folk high school" (there were 86 of them in 1979) is a boarding school which gives general education, social education and vocationally-oriented instruction. Emphasis is on developing the whole personality, and the aim is to improve the student's general educational level and educate him or her as an individual and as a member of society.

There are also "Study Centres" run by independent bodies, and in 1978, 368 000 adults took part in their activities. The centres offer a variety of lectures, courses and seminars, but the method of instruction most commonly used is the "study circle", of which there were 20 000 in 1978. The purpose of the study circle is to satisfy the educational needs of its members and the working methods used are very varied.

Evening upper secondary schools provide the opportunity to follow the normal upper secondary school syllabus. During the 1977-1978 school year, 13 000 students attended such schools.

Public libraries are closely connected with adult education. They organise lectures, library evenings, art exhibitions, concerts, etc., and also serve all schools in the area.

Finland has 42 special vocational training centres which in 1978 catered for 28 000 adults. They provide training which should normally lead directly into the labour market, and are open to people who are unemployed and to those who need further training or who wish to train for another occupation where jobs are available. Instruction, room and board are free of charge and all trainees receive a subsistence allowance (which is higher for those with dependents). In 1978, 35 750 people began employment training in these centres, which have about 1 500 full-time teachers.

An Act on educational leave of absence came into force in 1980. An employee who has served at least one year with the same employer is entitled to nine months' unpaid educational leave every three years. He must, however, first apply to his employer, who may postpone the [illegible] if necessary. If the employee is under contract, his status remains unchanged. However, until some kind of support measure is developed it seems unlikely that many employees will be tempted to take advantage of the provisions of this new Act.

The Adult Education Committee, set up in 1971, believes that the present system does not provide the basic skills which are the prerequisite for continuing studies, and that it has not met vocational training needs either quantitatively or qualitatively. Civic and economic adult education is also inadequate, since it has failed to reach large sections of the population. Above all, it is clearly those who most need adult education who take the least advantage of it; 65 per cent of the labour force has no formal vocational education.

In 1978, the Council of State laid down planning and development principles for adult education. The accent will be on continuing education, linking and co-ordinating training levels and forms in such a way that systematic and flexible study is possible at any age. Special efforts will be made to improve educational opportunities for the least privileged classes of the population so as to reduce inequalities. However, given the small amount of resources available, vocational adult education will take priority. Later it is hoped to develop general, supplementary and civic education.

VIII

TEACHER TRAINING

The Ministry of Education is the authority responsible for teacher training. Staff at day-care centres, comprehensive and upper secondary schools, and also the majority of those engaged in vocational and adult education, must be trained teachers. For teaching staff at university and higher vocational education level, pedagogical training is not compulsory.

Day-care centre staff undergo two years' training, including general and special studies as well as practical work (which takes up 40 per cent of the total hours of training). In 1979 the Council of State decided to extend this training period to three years. In future, teachers at day-care centres will be able to continue their studies to the level of the basic degree in education.

Recently teacher training was transferred entirely to institutions of higher education, and the reform of the latter's curricula has led to the replacement of the old three-year training course for class teachers by a five-year study period culminating in the basic higher education degree. One fundamental change in the new course is the introduction of research aspects. Training of subject teachers will no longer be in two phases (study of the subject in question, followed by separate pedagogical studies) but will be replaced by a unified vocationally-oriented course where the proportion of educational studies will be significantly increased (to about one-quarter of the entire programme). At the end of the course the same basic higher education degree will be awarded to both comprehensive and upper secondary school teachers.

The central features of the teacher training system reform are that:

— more attention is paid to vocational aspects;

— training is unified. All students will now receive the same basic instruction, regardless of the level at which they will later be teaching;

— all teachers will be eligible for post-graduate studies in education;

— teacher training will give access to other professions calling for a higher education degree. The creation of the comprehensive school has also introduced an important new element into teacher training. Student teachers can now spend a short training period each year on teaching practice in the type of school where they will eventually work;

— established teachers are now to attend in-service training several days a year.

The tasks and educational background of the teachers engaged in vocational education vary widely. In certain fields, no pedagogical training is required—a degree in higher education or a vocational degree is sufficient. General subject teachers are usually required to have the same qualifications as a comprehensive or upper secondary school teacher. There are, however, some 20 institutions which provide special training for teachers in vocational education. This training is of two types: combined vocational and pedagogical training; pedagogical training following the vocational or higher education degree.

Full-time adult educators are generally required to complete special practice teaching in adult education institutions as well as studies in pedagogics or adult education. The institutions of higher education also offer an opportunity to obtain the basic degree in adult education primarily designed for administrative, planning and research posts in this field.

IX

EDUCATIONAL RESEARCH

The Faculties of Education have concentrated their research activities primarily on teaching and learning in the comprehensive school and on problems in teacher training. Very little attention has been paid to research into vocational, higher and adult education and the links between training and the labour market. However, with the extensive reform of the educational system a new type of research has started—analyses designed for the preparation of reforms in the planning phase and evaluations of their results. Since the late 1960s appropriations for this purpose have been included in the State budget. This funding has been mainly channelled to the Educational Research Institute of the University of Jyväskylä, the largest unit carrying out research into the organisation and administration of the educational systems. One of its tasks is to undertake research and studies commissioned by education authorities, and commissioned research accounted for between 40 and 60 per cent of all the work done by the Institute during the 1970s.

Research funding, after a period of expansion, declined after 1975, although in recent years there has been an increase in work commissioned by State Committees and expert bodies. The National Board of General Education, in particular, received generous funding for its work on the preparation of the educational reforms. Since the beginning of the 1970s the Department for Higher Education and Research of the Ministry of Education has also had its own separate research appropriations in the State budget. Research on vocational education has up to now been modest in scale. Recently, however, the National Board of Vocational Education has been allotted more funds for research.

Attempts have been made to draw up a long-term programme for commissioned research funded by the Ministry of Education. It has been decided that in future educational research should be more scientific and multi-disciplinary, concentrating on a comprehensive set of problems and focussing more on those directly related to development of the educational system. Research on higher education is to give priority to studying the development of pedagogy at that level, analysing the relationship between the educational system and the labour market and reviewing questions of continuing and supplementary education. Prospects for adult education, correspondence courses and the educational leave scheme are also being systematically reviewed.

Problems have arisen in organising research and in utilising its results, and the authorities have set up several programmes designed to overcome these difficulties. The aim is to find the most effective ways of orienting research towards current problems so that it provides real support to educational planners and administrators by meeting their requirements and giving them the help they need for their decision-making.

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